

**California Marine Life Protection Act Initiative
Central Coast Study Region**

**Central Coast Regional Stakeholder Group
MPA Package 2**

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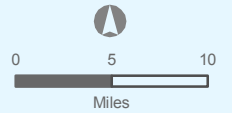
Marine Life Protection Act

Central Coast Study Region

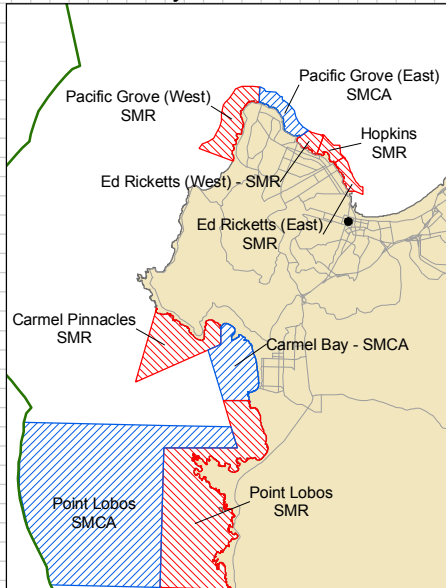
MPA Candidate Array

SMCA

SMR



Inset: Monterey - Carmel



Soquel Hole (Oceana) SMCA

Opal Cliffs SMCA

Watsonville

Elkhorn Slough SMR

Morro-Coho Slough SMR

Portuguese Ledge (Oceana) SMR

Marina

Pacific Grove (West) SMR

Pacific Grove (East) - SMCA

Hopkins (existing) SMR

Ed Ricketts (West) - SMR

Ed Ricketts (East) - SMR

Carmel Pinnacles SMR

Monterey

Carmel Bay - SMCA

Carmel

Point Lobos SMCA

Point Lobos SMR

Soledad

Hurricane Point

Point Sur

Point Sur - SMCA

Point Sur - SMR

Grimes Point

Big Creek SMCA

Big Creek SMR

Lopez Point

1 grid block = 1 sq. Statute Mile



CCRSG Package 2: South Central Coast Study Region

Marine Life Protection Act



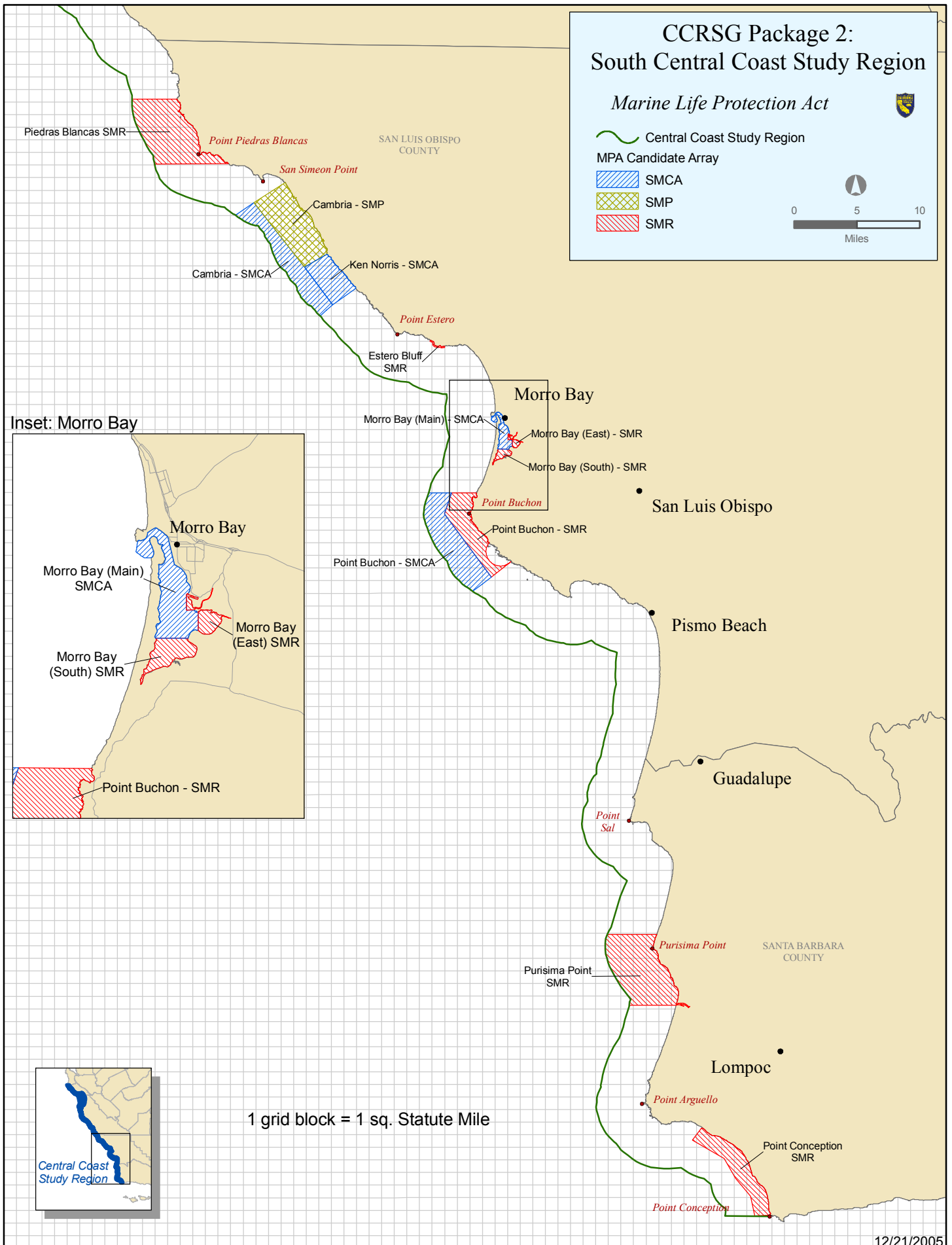
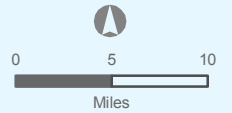
Central Coast Study Region

MPA Candidate Array

SMCA

SMP

SMR



SUMMARY OF AREA AND HABITATS IN PACKAGE 2

CCRSB PACKAGE 2 (12/15/05 version)

Type of MPA	# Proposed	Area (mi ²)	% of Study Region
State Marine Reserve	22	162.02 mi ²	14.09%
State Marine Park	1	17.45 mi ²	1.52%
State Marine Conservation Area	9	95.56 mi ²	8.31%
All MPAs combined	32	275.03 mi ²	23.92%

Individual MPAs proposed in Package 2:

MPA Name	Size (mi ²)	Along-shore span (mi)	Depth range (ft)
Gazos to Ano Nuevo State Marine Reserve	2.14 mi ²	5.5 mi	0-52 ft
Davenport State Marine Reserve (**)	20.32 mi ²	7.5 mi	0-243 ft
Baldwin to Natural Bridges State Marine Reserve (**)	0.59 mi ²	4.3 mi	3-21 ft
Opal Cliffs State Marine Conservation Area (*)	0.22 mi ²	1.7 mi	0-10 ft
Elkhorn Slough State Marine Reserve	1.56 mi ²	7.6 mi	0-10 ft
Morro Cojo Estuary State Marine Reserve	0.82 mi ²	7.6 mi	0-10 ft
Soquel Hole State Marine Conservation Area (**)	28.94 mi ²	9.3 mi	226-3931 ft
Portuguese Ledge State Marine Reserve	15.14 mi ²	5.9 mi	290-4838 ft
East Ed Ricketts State Marine Reserve	0.20 mi ²	0.7 mi	3-56 ft
Hopkins State Marine Reserve	0.17 mi ²	0.5 mi	3-71 ft
West Ed Ricketts State Marine Reserve	0.18 mi ²	0.6 mi	3-56 ft
Pacific Grove East State Marine Conservation Area (*)	0.41 mi ²	1.2 mi	3-59 ft
Pacific Grove West State Marine Reserve	0.85 mi ²	1.5 mi	0-63 ft
Carmel Pinnacles State Marine Reserve	1.42 mi ²	1.5 mi	3-241 ft
Carmel Bay State Marine Conservation Area (*)	1.26 mi ²	1.7 mi	3-124 ft
Point Lobos State Marine Reserve	5.03 mi ²	4.8 mi	0-471 ft
Point Lobos State Marine Conservation Area (**)	11.34 mi ²	4.0 mi	139-2111 ft
Point Sur State Marine Reserve	19.48 mi ²	5.4 mi	3-624 ft
Big Creek State Marine Reserve	17.86 mi ²	5.0 mi	0-2393 ft
Big Creek State Marine Conservation Area (**)	20.14 mi ²	5.7 mi	3-2227 ft
Piedras Blancas State Marine Reserve	22.09 mi ²	7.0 mi	0-337 ft
Cambria State Marine Park (^)	17.45 mi ²	6.6 mi	0-213 ft
Ken Norris State Marine Reserve (*)	7.87 mi ²	3.5 mi	0-234 ft
Cambria State Marine Conservation Area (***)	14.09 mi ²	10.1 mi	131-450 ft
Estero Bluff State Marine Reserve	0.14 mi ²	1.4 mi	0-10 ft
Morro Bay State Marine Conservation Area (*)	2.10 mi ²	7.6 mi	3-18 ft
Morro Bay East State Marine Reserve	0.40 mi ²	2.2 mi	0-10 ft
Morro Bay South State Marine Reserve	0.79 mi ²	2.4 mi	0-10 ft
Point Buchon State Marine Reserve	10.36 mi ²	6.7 mi	0-217 ft
Point Buchon State Marine Conservation Area (***)	17.06 mi ²	6.7 mi	167-377 ft
Purisma Point State Marine Reserve	23.24 mi ²	5.8 mi	0-193 ft
Point Conception State Marine Reserve	11.37 mi ²	8.9 mi	0-126 ft

Symbols following proposed MPA name indicate level of protection as determined by the Science Advisory Team. (***) indicates SMCA High, (**) indicates SMCA Moderate, (*) indicates SMCA Low, and (^) indicates SMP Low.

Habitat Representation as proposed for Package 2:

Percentage of Habitat in proposed MPA designations in the Study Region ¹

Habitat	SMR	SMP	SMCA	Total MPAs
Intertidal				
Sandy or gravel beaches	25.65%	2.92%	3.51%	32.07%
Rocky intertidal and cliff	33.73%	2.29%	5.44%	41.46%
Coastal marsh	57.16%	1.29%	4.05%	62.50%
Tidal flats	64.24%	0.64%	18.83%	83.70%
Seagrass beds (0-30m): Surfgrass	36.65%	3.48%	7.64%	47.77%
Seagrass beds (0-30m): Eelgrass	32.62%	0.00%	67.10%	99.71%
Estuary	43.13%	0.20%	21.36%	64.70%
Soft bottom				
0-30 meters	11.97%	2.32%	1.46%	15.75%
30-100 meters	13.03%	1.61%	7.40%	22.04%
100-200 meters	10.22%	0.00%	18.09%	28.31%
>200 meters	11.27%	0.00%	23.76%	35.03%
Hard bottom				
0-30 meters	32.37%	1.96%	2.50%	36.82%
30-100 meters	22.06%	1.71%	10.72%	34.49%
100-200m	15.78%	0.00%	27.54%	43.32%
>200 meters	12.69%	0.00%	24.02%	36.70%
Kelp forest				
Average Kelp ('89, '99, '02, '03)	30.83%	5.75%	7.60%	44.18%
Persistent Kelp	22.97%	11.64%	14.16%	48.77%
Submarine canyon				
0-30 meters	31.86%	0.00%	5.31%	37.17%
30-100 meters	9.95%	0.00%	18.09%	28.04%
100-200 meters	7.76%	0.00%	23.11%	30.86%
>200 meters	14.75%	0.00%	24.45%	39.21%

¹ Note: These are proposed MPA designations, NOT levels of protection assigned by the SAT.

SUMMARY MATRIX OF INDIVIDUAL MPAS IN PACKAGE 2

Package #2 – December 15, 2005 version

MPA NAME	Regulations	Regional Goals/Objectives and Design Criteria	MPA-Specific Objectives	Species Likely to Benefit
Gazos to Año Nuevo State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2 Goal 4 – Obj. 2 Goal 5 – Obj. 1</p> <p>Design Considerations: 1, 2, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective.1: Maintain protection of area with high diversity of intertidal species characteristic of sub-region north of Monterey Bay. Indicator species TBD by SAT.</p> <p>Goal 1, Objective 2: Protect area with diverse intertidal habitats including wave cut rocky platforms, sand and gravel beaches and offshore island.</p> <p>Goal 2, Objective. 1: Reduce disturbance to breeding colonies of listed seabirds and marine mammal rookeries from activities associated with fishing vessels (lights, noise, etc). Note _ mile buffer has been identified by biologists as the bare minimum that may provide some benefit to the animals.</p> <p>Goal 2, Objective 2: Protect larval source and enhance reproductive capacity of intertidal invertebrate species such as limpets, mussels, sea stars, turban snails, worms, and black and red abalone.(because sea otters may be limited by shark predation in this area, healthy populations of red and black abalone occur here).</p> <p>Goal 3, Objective 1: Site MPA adjacent to State Park with high number of annual visitors that has traditionally served as important marine education site through visitor center and docent program. Note: California Department of Parks and Recreation has recommended this area as a Marine Reserve.</p> <p>Goal 3, Objective 2: Replicate Baldwin Creek to Natural Bridges Intertidal SMR intertidal habitats and Opal Cliffs Intertidal SMCA surfgrass bed.</p> <p>Goal 4, Objective 2: Protect sandy and gravel beaches, surfgrass beds, and nearshore soft and hard bottom habitat (0-30 meters).</p> <p>Goal 5, Objective 1: Greatly reduce socio-economic impacts to fishing associated with preferred conservation option of SMR that meets MPF Science Guidelines and is centered on Point Año Nuevo. Protect access for recreational fishing while providing a buffer to reduce seabird and marine mammal disturbance at a site with exceptionally high non-consumptive value associated with wildlife viewing.</p>	<p>Ashy storm petrel, Brandt's Cormorant, Brown pelican, Cassin's auklet, Marbled Murrelets, Pelagic cormorant, Pigeon guillemot, Rhinoceros auklet, Western gull.</p> <p>Southern sea otter, Steller's sea lion, harbor seal.</p> <p>Dungeness crab, limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms, black and red abalone.</p> <p>May provide some limited benefit to some resident nearshore rockfish species and other fish species with modest movement patterns found in less than 66-foot depth (benefits limited because SMR extends only _ from shore).</p>
Davenport State Marine Reserve	<p>No take.</p> <p>Note: Site is proposed as SMR however an existing kelp bed lease may require a phasing in of this level of protection after lease has expired and can be redrawn. We propose this MPA be established as an SMCA allowing</p>	<p>Goal 1 – Obj. 1, 2, 3, 4, 5 Goal 2 – Obj. 1, 2 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1, 3 Design Considerations: 1, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect area of high species diversity characteristic of the area of the Central Coast Study Region north of Monterey Bay and maintain species diversity and abundance as demonstrated by monitoring appropriate indicator species TBD by SAT with focus on NFMP species.</p> <p>Goal 1, Objective 2: Protect rocky intertidal, sand beaches, rocky reef (0-30 m, 30-100m), soft bottom (0-30m, 30-100m).</p> <p>Goal 1, Objective 3: Protect natural size and age structure and genetic diversity of populations of nearshore rockfish species and invertebrates including appropriate indicator species TBD by SAT.</p> <p>Goal 1, Objective 4: Protect natural trophic structure and food web including forage base (including crabs, squid and other Coastal Pelagic Species) for listed seabirds and marine mammals as well as fish.</p>	<p>Ashy storm petrel, Brandt's Cormorant, Brown pelican, Cassin's auklet, Marbled Murrelet, Pelagic cormorant, Pigeon guillemot, Rhinoceros auklet, Western gull.</p> <p>Southern sea otter, Steller's sea lion, harbor seal.</p> <p>Lingcod, black rockfish, black-and-yellow rockfish,</p>

	only kelp harvesting under the existing lease in any interim period.		<p>Goal 1, Objective 5: Protect ecosystem functions associated with lee of headland in productive upwelling zone.</p> <p>Goal 2, Objective. 1: Protect important forage area for nearby breeding colonies of listed seabirds and marine mammals.</p> <p>Goal 2, Objective 2: Protect larval source and enhance reproductive capacity of intertidal invertebrate species such as Dungeness crabs, limpets, mussels, sea stars, turban snails; fish species including nearshore rockfish and halibut; and protect area of squid spawning grounds.</p> <p>Goal 4, Objective 1: Include estuary at Waddell Creek in SMR.</p> <p>Goal 4, Objective 2: Protect sandy and gravel beaches, hard and soft bottom (0-30 m, 30-100m) in SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by maintaining area around Año Nuevo (preferred for conservation values) open to fishing since this area was identified as being of top importance to Recreational Fishermen and area north of Año was identified as important to squid, recreational fishing and crabbers. This site does have some impact on the squid fishery. However, the boundaries of this SMR were drawn to minimize impacts to the squid fishery (thus the triangle shape of this MPA) and data shows important squid grounds in nearby areas (lee of Franklin Point and between City of Santa Cruz and Davenport SMR) that would remain open to fishing).</p> <p>Goal 5, Objective 3: Site MPA that meets MPF Scientific Guidelines for shoreline (at 7.5 miles, site is near the bottom of the preferred 6-12 mile range) and offshore extent (3 nm).</p>	<p>blue rockfish, brown rockfish, cabezon, China rockfish, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, monkeyface pricklyback, canary, bocaccio, widow, yellowtail. Surfperches, Pacific sand dab, petrale sole, California halibut.</p> <p>Dungeness crab, limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms.</p> <p>Market squid.</p>
Baldwin to Natural Bridges State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2, 3 Goal 2 – Obj. 2 Goal 3 – Obj. 1, 2, 3 Goal 4 – Obj. 2 Goal 5 – Obj. 1 Design Considerations: 1, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect high diversity intertidal habitat and range of species characteristic of intertidal regions north of Monterey Bay.</p> <p>Goal 1, Objective 2: Protect areas with salt marsh, sand and gravel beaches, rocky intertidal, wave cut platforms and exposed rocky cliffs in close proximity to each other.</p> <p>Goal 1, Objective 3: Protect natural size and age structure and genetic diversity of populations of intertidal invertebrates including appropriate indicator species TBD by SAT.</p> <p>Goal 2, Objective 2: Protect larval source and enhance reproductive capacity of intertidal invertebrate species such as limpets, mussels, sea stars, and turban snails.</p> <p>Goal 3, Objective 1: Enhance educational/research use of accessible intertidal area by siting SMR adjacent to two state parks and University of California, Santa Cruz. Natural Bridges State Beach receives over 900,000 visitors a year. Regional Profile at 55. Note: California Department of Parks and Recreation has recommended this area as a Marine Park.</p> <p>Goal 3, Objective 2: Replicate intertidal habitat found in SMRs at Año Nuevo and in open/unprotected area at Sand Hill Bluff (where existing monitoring site exists). Existing PISCO monitoring sites located within the SMR.</p> <p>Goal 3, Objective 3: high school students have historically monitored Site as part of LiMPETS program.</p> <p>Goal 4, Objective 2: Protect and replicate intertidal sand and gravel beach, wave cut rocky platforms, exposed rocky cliffs and hard bottom habitat in very nearshore area of 0-30 m depth range.</p>	<p>As intertidal SMR limited to 20-foot depth, species most likely to benefit are algae and invertebrates.</p> <p>Giant kelp and other intertidal algal species.</p> <p>Limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms.</p>

			Goal 5, Objective 1: SMR designed specifically to avoid socio-economic impacts. As intertidal SMR, site will not affect fishing activities. Preferred option of siting a SMR that extends to greater depth range (as identified in the IDC proposal) was not pursued in an effort to reduce socio-economic impacts by avoiding siting SMRs adjacent to Santa Cruz harbor.	
Opal Cliffs State Marine Conservation Area	Take of all living marine resources is prohibited except the recreational take of finfish by rod and reel from shore.	Goal 2 – Obj. 3 Goal 3 – Obj. 1, 3, 4 Goal 4 – Obj. 2 Goal 5 – Obj. 1 Design Considerations: 1, 3, 5, 6, 7, 8, 9, 10	<p>Goal 2, Objective 3: Protect benthic invertebrate species associated with surfgrass bed in very shallow depth range (0-12 feet) while allowing shorefishing for all other species.</p> <p>Goal 3, Objective 1: Site MPA in area offshore of Santa Cruz population center near educational institutions including UC Santa Cruz, Cabrillo Community College and local high schools to provide easy access to site for educational and research purposes.</p> <p>Goal 3, Objective 2: Replicate surfgrass beds also found in Gazos to Año SMR.</p> <p>Goal 3, Objective 3: high school students have historically monitored Site as part of LiMPETS program.</p> <p>Goal 4, Objective 2: Protect large surfgrass bed and associated plant and benthic invertebrate communities.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts to Santa Cruz based fishing fleet by proposing only intertidal MPA with no impact on fishing in the vicinity of this harbor. This proposal intentionally leaves open many areas with high conservation values suitable for MPA protection, such as shale reef between Davenport and Santa Cruz and rocky bottom habitat and known larval retention area around Soquel Point.</p>	<p>As intertidal SMCA limited to 12-foot depth, species most likely to benefit are algae and invertebrates.</p> <p>Surfgrass.</p> <p>Limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms.</p>
Elkhorn Slough State Marine Reserve	No take.	Goal 1 – Obj. 1, 2, 3, 4 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2 Goal 4 – Obj. 1 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 5, 6, 7, 8, 9	<p>Goal 1, Objective 1: Protect estuarine area with high bird diversity.</p> <p>Goal 1, Objective 2: Protect area with diversity of estuarine habitats – open channel, mud flats, eelgrass beds.</p> <p>Goal 1, Objective 3: Protect natural age, size structure, and genetic diversity of fish and invertebrate species characteristic of large estuarine system – especially elasmobranchs (nursery) and native gaper clams and fat innkeeper worms.</p> <p>Goal 1, Objective 4: Protect natural structure and food web of estuarine system including forage base (invertebrates) for sea otters, seabirds, etc.</p> <p>Goal 2, Objective 1: Help protect listed seabirds and threatened southern sea otter by protecting invertebrate prey.</p> <p>Goal 2, Objective 2: Enhance reproductive capacity of both invertebrate and fish species by prohibiting take in important nursery area.</p> <p>Goal 3, Objective 1: Expand existing SMR in area adjacent to educational & interpretive facilities of the NERR and near Moss Landing Marine Labs and MBARI.</p> <p>Goal 3, Objective 2: Protect and replicate representative estuarine habitat in Central Coast Study Area within SMR.</p> <p>Goal 4, Objective 1: Protect estuary in SMR.</p> <p>Goal 5, Objective 1: Site expands SMR in area that has recently received little fishing effort, where some fish species are contaminated by pollutants and therefore possibly not suitable for consumption, and where non-consumptive values likely to be enhanced by the SMR (kayaking and wildlife watching) are particularly high.</p>	<p>Crabs, ghost shrimp, moon snails, mud shrimp, mussels, sea hares, worms, gaper clams.</p> <p>Eelgrass and other intertidal species.</p> <p>Brown Pelicans, Double-crested Cormorant, Least Tern, Caspian Terns, Grebes, Loons, Red-necked Phalaropes</p> <p>Harbor seal, southern sea otter.</p> <p>Bat ray, black surfperch, California halibut, English sole, leopard shark, pile surfperch, rainbow surfperch, shiner surfperch, starry flounder, surf smelt, top smelt, walleye surfperch, white surfperch.</p>

Moro Cojo SMR	No take.	Goal 4 – Obj. 1 Goal 5 – Obj. 1	Goal 4, Objective 1: Protect estuary in SMR. Goal 5, Objective 1: SMR has no socio-economic impact since no consumptive activities occur in this area.	Snails. Eelgrass and other intertidal algal species. Surfperch. Brown Pelicans, Least Tern, Grebes, Loons, Red-necked Phalarope.
Soquel Hole State Marine Conservation Area	Take of all living marine resources is prohibited except: Take of salmon and albacore and take of spot prawns by traps.	Goal 1 – Obj. 1, 2, 3 Goal 2 – Obj. 1, 2, 3 Goal 3 – Obj. 1, 2 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 5, 6, 7, 9	Goal 1, Objective 1: Protect area with high species diversity associated with submarine canyon including deepwater fish species, foraging seabirds and feeding marine mammals. Area is within top 20 th percentile for fish and seabird density. Goal 1, Objective 2: Help protect area of diverse habitat including hard and soft bottom (0-30m, 30-100m, 100-200m, >200m), and submarine canyon habitat over large range of depths (30-100m, 100-200m, >200m). Goal 1, Objective 3: Help restore overfished groundfish species by maintaining large individuals of species such as bocaccio, canary and yelloweye rockfish in area that serves as natural refugia for these species. Goal 2, Objective 1: Protect overfished rockfish species including bocaccio and canary rockfish as well as forage base for listed seabirds, whales and other marine mammals Goal 2, Objective 2: Enhance reproductive capacity of benthic and deepwater species by prohibiting fishing for these species and limiting bycatch. Goal 2, Objective 3: Protect rockfish and most of benthic community (except spot prawns) and forage base utilized by birds and whales (small CPS) while allowing fishing for salmon, albacore and spot prawns. Goal 3, Objective 1: Site MPA near MBARI and Moss Landing Marine Labs where remotely operated vehicles, future MARS cable and other research methods have already generated baseline data. The MARS cable will also provide a unique opportunity for a classroom curriculum based around real-time data received from the cable. Goal 3, Objective 2: Provide (fished) replicate deepwater soft bottom, hard bottom and submarine canyon habitat (30-100, 100-200, >200m) for Portuguese Ledge and possibly Big Creek SMR. Goal 4, Objective 1: Include head of Soquel Canyon in MPA. Goal 4, Objective 2: Protect and replicate deepwater habitats (soft and hard) and submarine canyon habitat across near full range of depths. Note: since this is not an SMR, it does not qualify as replicate representative habitat under F & G Code Section 2857 (c) (2). Goal 5, Objective 1: Socio-economic impacts minimized by allowing salmon and albacore fishing and spot prawn trapping. Since rockfish fishing is already prohibited in this area under the RCA, the proposed SMCA will not result in additional socio-economic impacts to the commercial or recreational rockfish fleets. See Regional Profile, Map 14.	Dungeness crab, market squid, sea stars, gorgonians, corals, sponges. Gray whale, harbor porpoise. Aurora rockfish, bank rockfish, Bocaccio, canary, yelloweye, cowcod, greenspotted, greenstriped, canary, widow, bank, chilipepper, flag, rosy, speckled, starry, yellowtail, and vermillion rockfish, widow rockfish, lingcod. Sole (Dover, English, petrale, rex, sand, slender), surfperch (shiner and walleye). Pacific sand dabs. Leopard shark. Common Murre, Northern Fulmar, Shearwaters.
Portuguese Ledge State Marine Reserve	No take.	Goal 1 – Obj. 1, 2, 3, 4, 5 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2	Goal 1, Objective 1: Protect area with high species diversity associated with mid-depth and deepwater sandy and rocky bottom, as well as very deep hard rock walls of Monterey Submarine Canyon including deepwater fish species, foraging seabirds and feeding marine mammals. Area	Dungeness crab, market squid, sea stars, gorgonians, corals,

		<p>Goal 4 – Obj. 2 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 5, 6, 7, 9</p>	<p>is within top 20th percentile for seabird density and diversity and top 20th percentile for fish density.</p> <p>Goal 1, Objective 2: Protect area of diverse habitat including hard and soft bottom (0-30m, 30-100m, 100-200m, >200m), and deep-water submarine canyon habitat (>200m). Note this SMR extends into depths of nearly 5000 feet, providing the only SMR in the study region that protects this very deepwater canyon habitat.</p> <p>Goal 1, Objective 3: Help restore natural age structure and size of depleted rockfish populations including indicator species (TBD by SAT).</p> <p>Goal 1, Objective 4: Protect trophic structure and food web associated with deeper water Monterey Bay and canyon communities (at depths from 88 meters to >200 meters). SMR is designed specifically to protect forage base for fish, seabirds and marine mammals by protecting full range of species including Coastal Pelagic Species, crabs, etc.</p> <p>Goal 1, Objective 5: Protect ecosystem function and structure associated with very deepwater habitats and communities including eliminating bycatch and impacts of discarded gear. Facilitate recovery of a variety of important rockfish species.</p> <p>Goal 2, Objective 1: Help protect and rebuild populations of overfished rockfish species including bocaccio, yelloweye and canary. Protect forage base for listed seabird and marine mammal species.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of deepwater species including rockfish species.</p> <p>Goal 3, Objective 1: Site MPA near MBARI and Moss Landing Marine Labs where remotely operated vehicles and other research methods have already generated baseline data.</p> <p>Goal 3, Objective 2: Replicate deepwater habitats (sand, rock and deepwater canyon) found in the Soquel Hole SMCA and Point Lobos SMCA (fished) and in the Big Creek SMR.</p> <p>Goal 4, Objective 2: Protect in SMR, hard and soft bottom (0-30m, 30-100m, 100-200m, >200m), and submarine canyon habitat (>200m).</p> <p>Goal 5, Objective 1: Since recreational and non-trawl rockfish fishing is already prohibited in this area under the RCA and is within the proposed EFH trawl closure area, this SMCA will not result in additional socio-economic impacts to the commercial or recreational rockfish fleets. See Regional Profile, Map 14.</p>	<p>sponges, spot prawns.</p> <p>Gray whale, harbor porpoise.</p> <p>Aurora rockfish, bank rockfish, bocaccio, canary, yelloweye, cowcod, greenspotted, greenstriped, canary, widow, bank, chilipepper, flag, rosy, speckled, starry, yellowtail, and vermilion rockfish, widow rockfish, lingcod.</p> <p>Sole (Dover, English, petrale, rex, sand, slender), surfperch (shiner and walleye). Pacific sand dabs. Leopard shark.</p> <p>Common Murre, Rhinoceros auklet, Northern Fulmar, Shearwaters.</p>
East Ed Ricketts State Marine Reserve	No take.	<p>Goal 1 - Obj. 1 Goal 2 – Obj. 2 Goal 3 – Obj. 1, 3, 4 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect area of known fish diversity where over 90 species have been identified through surveys.</p> <p>Goal 2, Objective 2: Protect large individuals of resident nearshore fish species in known nursery area.</p> <p>Goal 3, Objective 1: Enhance non-consumptive recreational dive experience at most heavily used dive site on the West Coast (approximately 65,000 diver days per year) and improve safety at most popular training dive site for open water SCUBA certification in the United States by eliminating hooking incidents associated with angling from Breakwater. Regional Profile, 85 & 89. Enhance research and study opportunities by increasing protection in area adjacent to Hopkins Marine Station.</p> <p>Goal 3, Objective 3: Promote opportunity for use of volunteer divers in research and monitoring projects by siting MPA in area most heavily used by divers where REEF volunteer monitoring</p>	<p>Giant kelp and other intertidal algal species.</p> <p>Limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms.</p> <p>May provide some benefit to resident nearshore fish species and those with limited movement patterns such as: Lingcod, black rockfish,</p>

			<p>already takes place.</p> <p>Goal 3, Objective 4: Protect and enhance recreational experience for non-consumptive divers by helping to encourage natural size and age structure of resident species by eliminating take.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by limiting SMR to 60 foot depth range to allow continued consumptive use in waters deeper than 60 feet while optimizing socio-economic benefits by enhancing top non-consumptive dive site through improved protection and safety. Shale bed area specifically left outside of MPA protection to provide access for skiff and CPFV fleet.</p>	<p>black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, monkeyface prickleback, California halibut</p> <p>Harbor seal, sea otter.</p>
Hopkins State Marine Reserve	No take.	<p>Goal 2 – Obj. 2</p> <p>Goal 3 – Obj. 1, 3</p> <p>Goal 5 – Obj. 1</p> <p>Design Considerations: 1, 2, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 2, Objective 2: Protect large individuals of resident nearshore fish species in known nursery area.</p> <p>Goal 3, Objective 1: Enhance scientific research opportunities at site of traditional high research value by expanding protection in adjacent areas and extending SMR adjacent to Hopkins Marine Station into deeper waters. Area has long history of research and baseline data available.</p> <p>Goal 3, Objective 3: MPA sited adjacent to Stanford University's Hopkins Marine Station and used by students for educational and monitoring purposes.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by limiting SMR to 70 foot depth range to allow continued consumptive use in waters deeper than 70 feet.</p>	See above.
West Ed Ricketts State Marine Reserve	No take.	<p>Goal 2- Obj. 2</p> <p>Goal 3 – Obj. 1, 3, 4</p> <p>Goal 5 – Obj. 1</p> <p>Design Considerations: 1, 2, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 2, Objective 2: Protect large individuals of resident nearshore fish species in known nursery area.</p> <p>Goal 3, Objective 1: Enhance non-consumptive recreational dive experience at traditional access site.</p> <p>Goal 3, Objective 3: Promote opportunity for use of volunteer divers in research and monitoring projects by siting MPA in area most heavily used by divers where REEF volunteer monitoring already takes place.</p> <p>Goal 3, Objective 4: Protect (and hopefully enhance) recreational experience for non-consumptive divers by helping to encourage natural size and age structure of resident species by eliminating take.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by limiting SMR to 60 foot depth range to allow continued consumptive use in waters deeper than 60 feet while optimizing socio-economic benefits by enhancing top non-consumptive dive site through improved protection and safety.</p>	See above.
Pacific Grove East State Marine Conservation Area	In whole SMCA: Commercial take is prohibited except kelp harvesting allowed by hand harvest under harvest plan that allocates take to existing harvesters at rates approximately equal to existing take levels.	<p>Goal 3 – Obj. 1, 2, 3, 4</p> <p>Goal 5 – Obj. 1</p> <p>Design Considerations: 1, 3, 5, 6, 7, 9</p>	<p>Goal 3, Objective 1: Enhance recreational experience (consumptive and non-consumptive) by siting MPA in accessible area adjacent to Monterey/Pacific Grove population center.</p> <p>Goal 3, Objective 2: Provide potential opportunity to study impacts of kelp harvesting by replicating Ed Ricketts and Hopkins SMRs in SMCA that allows kelp harvest. Potential opportunity to compare adjacent unfished (Ricketts and Hopkins SMRs and recreationally fished (Pacific Grove SMCA) areas. However, small size of each area may confound research results.</p> <p>Goal 3, Objective 3: Promote opportunity for use of volunteer divers in research and monitoring projects by siting MPA in area most heavily used by divers where REEF volunteer monitoring already takes place.</p> <p>Goal 3, Objective 4: Potentially enhance recreational consumptive experience in area of SMCA</p>	Since SMCA allows kelp harvesting and some recreational take, only invertebrates species likely to benefit.

	<p>No intertidal collection and no poke pole fishing allowed.</p> <p>No spear fishing contests allowed: Any competition involving two or more persons in which persons are ranked, or winners are determined, based on the size, weight, number of species, type of species, or number of fish taken by means of spearfishing.</p> <p>In area between line due west of Esplanade Street and line due west of Lover's Point: Recreational take of finfish by spear and by hook and line allowed.</p>		<p>that allows recreational fishing by helping to encourage natural size and age structure of resident species due to adjacent SMRs and prohibition on commercial take.</p> <p>Goal 5, Objective 1: Allow continued recreational and kelp harvest access to traditional spear and shorefishing areas and persistent kelp bed in close vicinity to abalone farm.</p>	
Pacific Grove West State Marine Reserve	No take.	<p>Goal 1 – Obj. 1 Goal 2 – Obj. 2 Goal 3 – Obj. 1, 2, 3, 4 Goal 4 – Obj. 2 Goal 5 – Obj. 1, Design Considerations: 1, 3, 5, 6, 7, 9</p>	<p>Goal 1, Objective 1: Protect high diversity intertidal habitat and nearshore kelp forest and range of species characteristic of intertidal and nearshore regions of Monterey Peninsula.</p> <p>Goal 2, Objective 2: Protect larval source and enhance reproductive capacity of intertidal invertebrate species such as limpets, mussels, sea stars, turban snails and worms.</p> <p>Goal 3, Objective 1: Protect MPA in area close to Monterey/Pacific Grove population center that has long standing and strong community support and high educational and recreational (tide pooling) value. Area is accessible to many local research institutions.</p>	<p>May provide some benefit to: Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, monkeyface prickleback, California halibut.</p> <p>Limpets, little neck clams, moon snails, mussels, rock scallop, sea hares, sea stars, turban snails, worms.</p>
Carmel Pinnacles State Marine Reserve	No take.	<p>Goal 1 – 2 Goal 3 – Obj. 1, 2, 3 Goal 4 – Obj. 1</p>	<p>Goal 1, Objective 2: Protects communities associated with bull kelp and giant kelp forest habitats and hydrocoral colony.</p>	<p>Sponges and corals. May provide some benefit to: Lingcod, black</p>

		Design Considerations: 1, 5, 6, 7, 8, 9	<p>Goal 3, Objective 1: Enhance non-consumptive recreational dive experience at traditional access site depleted by fishing. Note: California Department of Parks and Recreation has recommended this area as a Marine Reserve.</p> <p>Goal 3, Objective 2: Replicate for pinnacles in Point Lobos SMR.</p> <p>Goal 3, Objective 3: Site MPA to include long-term monitoring site used by Moss Landing Marine Labs introductory subtidal marine biology course.</p> <p>Goal 4, Objective 1: Include pinnacles habitat in SMR.</p>	rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, China rockfish, cabezon, canary, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, and monkeyface prickleback.
Carmel Bay State Marine Conservation Area	<p>Take of all living marine resources is prohibited except the recreational take of finfish by hook and line or spear and the commercial take of kelp by hand harvest.</p> <p>No spearfishing contests allowed: Any competition involving two or more persons in which persons are ranked or winners are determined based on the size, weight, number of species, type of species, or number of fish taken by means of spearfishing.</p>	<p>Goal 2 - Obj. 3</p> <p>Goal 3 - Obj. 1</p> <p>Goal 5 - Obj. 1</p> <p>Design Considerations: 1, 2, 5, 7, 8</p>	<p>Goal 2, Objective 3: Allow continued recreational and some commercial take in area of historic recreational use value near Monterey harbor while protecting mollusks and crustaceans.</p> <p>Goal 3, Objective 1: Maintain existing MPA located near population center of Monterey Peninsula that is accessible for recreational opportunities (consumptive and non-consumptive).</p> <p>Goal 5, Objective 1: Maintains existing MPA so will not result in any additional socio-economic impact.</p>	Since recreational take allowed (except for mollusks and crustaceans), area likely to only benefit species not taken recreationally such as market squid and mollusks and crustaceans.
Point Lobos State Marine Reserve	<p>No take.</p> <p>Note: Current regulations at Point Lobos limiting diver access do not apply to new areas covered by this proposal.</p>	<p>Goal 1 – Obj. 1, 2, 3, 4, 5</p> <p>Goal 2 – Obj. 1, 2</p> <p>Goal 3 – Obj. 1, 2, 3, 4</p> <p>Goal 4 – Obj. 1, 2</p> <p>Goal 5 – Obj. 1, 3</p> <p>Design Considerations: 1, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect area of high species diversity characteristic of the middle area of the Study Region and maintain species diversity and abundance as demonstrated by monitoring indicator species TBD by SAT. Area is within top 20th percentile for fish density and top 20th percentile for seabird density and diversity (over 200 species of seabirds identified).</p> <p>Goal 1, Objective 2: Protect rocky intertidal, kelp bed, Carmel River mouth estuary, rocky reef (0-30, 30-100), sandy bottom (0-30, 30-100), and submarine canyon (0-30 m).</p> <p>Goal 1, Objective 3: Protect natural age and size structure of invertebrate and fish species associated with mid-depth range and limited mobility (SMR has 4.6 mile alongshore span).</p> <p>Goal 1, Objective 4: Protect natural trophic structure and food webs including forage species like squid and other coastal pelagic species that serve as prey for other fish, seabirds and marine mammals.</p> <p>Goal 1, Objective 5: Protect ecosystem structure and functions associated with canyon, rocky reef</p>	<p>Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, China rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface prickleback. Market squid</p> <p>Limpets, little neck clams, moon snails, mussels, rock scallop, sea hares,</p>

			<p>and kelp forest communities.</p> <p>Goal 2, Objective 1: Help protect listed seabird and marine mammal species by protecting forage base.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of invertebrates and fish with limited movement patterns including indicator species TBD by SAT.</p> <p>Goal 3, Objective 1: Expand existing SMR with extensive educational and interpretive facilities including visitor center and docent program. Note: California Department of Parks and Recreation has recommended this area as a Marine Reserve.</p> <p>Goal 3, Objective 2: PISCO monitoring program has already established replicate inside/outside SMR monitoring sites for Point Lobos and baseline data exists. Replicates pinnacles habitat found in Carmel Pinnacles SMR.</p> <p>Goal 3, Objective 3: Existing high school program involves students in MPA monitoring at Point Lobos.</p> <p>Goal 3, Objective 4: Protect and enhance recreational experience by expanding protection of existing SMR to better ensure protection of large fish.</p> <p>Goal 4, Objective 1: Protect head of Carmel Submarine Canyon, pinnacles and small estuary in SMR. Note this is only MPA in Package 2 that protects Submarine Canyon at 0-30 m depth range.</p> <p>Goal 4, Objective 2: Include within SMR rocky intertidal, kelp bed, rocky reef (0-30, 30-100), sandy bottom (0-30, 30-100) habitat and submarine canyon (0-30m).</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by expanding existing SMR rather than siting new one. Offshore boundary of SMR drawn specifically to avoid impacting spot prawn fishery. Optimize socio-economic benefits by improving protection in area that has particularly high non-consumptive use patterns including diving and wildlife watching.</p> <p>Goal 5, Objective 3: Site MPA that meets MPF Scientific Guidelines for shoreline (at 5 miles, site is below the preferred 6-12 mile range) and offshore extent (SMCA buffer extends to 3 nm).</p>	<p>sea stars, turban snails, worms.</p> <p>Southern sea otter, harbor seal.</p> <p>Brandt's cormorant, Brown pelican, Double-crested Cormorant, Pelagic Cormorant, Loons, Scoters.</p> <p>Giant kelp, other intertidal algae.</p>
Point Lobos State Marine Conservation Area	Take of all living marine resources prohibited except: Take of salmon and albacore and take of spot prawns by trap.	<p>Goal 1 – Obj. 2</p> <p>Goal 2 – Obj. 1, 2, 3</p> <p>Goal 3 – Obj. 2</p> <p>Goal 5 – Obj. 1, 3</p> <p>Design Considerations: 1, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 2: Protect area with soft and hard bottom habitats across a diversity of depth ranges (30-100m, 100-200m, >200m, submarine canyon 30-100, 100-200m).</p> <p>Goal 2, Objective 1: Help protect populations of overfished rockfish (including bocaccio, canary and yelloweye) and help protect forage (including coastal pelagic species) for listed seabirds.</p> <p>Goal 2, Objective 2: Enhance reproductive capacity of benthic fish species by limiting fishing to deep water where it is less likely to result in bycatch of large, mature benthic organisms.</p> <p>Goal 2, Objective 3: Allow harvest of some species (salmon and spot prawn) while providing buffer for improved protection of Point Lobos SMR into deeper water.</p> <p>Goal 3, Objective 2: Provide (fished) replicate deepwater soft bottom, hard bottom and submarine canyon habitat for Portuguese Ledge and Big Creek SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by allowing fishing for salmon, albacore and spot prawns. Boundaries of SMCA and SMR drawn specifically to ensure no impact to spot prawn trap fishery. Site is within proposed EFH closure and non-trawl RCA furthering limiting</p>	<p>Southern sea otter, harbor seal.</p> <p>Gorgonians, corals and sponges.</p> <p>Bocaccio, canary, yelloweye, cowcod, greenspotted, greenstriped, canary, widow, bank, chilipepper, flag, rosy, speckled, starry, yellowtail, and vermillion rockfish, lingcod.</p> <p>Brandt's cormorant, Brown pelican, Double-</p>

			<p>socio-economic impacts.</p> <p>Goal 5, Objective 3: Buffer SMR with SMCA that extends to 3 nm from shore to meet MPF Guidelines for offshore extent.</p>	<p>crested Cormorant, Pelagic Cormorant, Loons, Scoters.</p>
Point Sur State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2, 3, 4, 5 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 3 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1, 3 Design Considerations: 1, 2, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect area of particularly high species diversity associated with upwelling cell in lee of headland and maintain species diversity and abundance including appropriate indicator species TBD by SAT. Area is within top 20th percentile for fish density and diversity and for seabird diversity.</p> <p>Goal 1, Objective 2: Protect upwelling cell and area in lee of headland with unique oceanographic conditions, diverse and especially high quality habitats including most extensive rocky reef and largest and most persistent kelp forest in Central Coast. Other habitats include surfgrass beds, sandy beach, rocky intertidal, Big Sur River estuary, and soft and hard bottom habitat (0-30, 30-100) and submarine canyon (30-100m, 100-200 m).</p> <p>Goal 1, Objectives 3: Protect natural age and size of populations associated with this area including indicator species TBD by SAT.</p> <p>Goal 1, Objective 4: Protect natural trophic structure and food webs associated with the diverse communities found in this area including rocky reef species, species associated with sandy bottom areas, kelp forest species and submarine canyon communities including full range of forage and predation interactions from prey species such as juvenile rockfish, squid and Coastal Pelagic Species to top predators such as seabirds and marine mammals.</p> <p>Goal 1, Objective 5: Protect full range of ecosystem functions in area of high ecological value that is geographically and oceanographically well suited to provide larval dispersal that may help the rest of the Big Sur coast.</p> <p>Goal 2, Objective 1: Help protect healthy populations of overfished rockfish species including bocaccio, yelloweye and canary. Protect forage base for listed seabird and marine mammal species as well as listed fish species.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of deepwater species including rockfish species. Kelp bed in lee of point likely serves as larval retention area.</p> <p>Goal 3, Objective 1: Site MPA near State Park where existing PISCO subtidal monitoring site exists, providing baseline data. Note: California Department of Parks and Recreation recommended this area as a State Marine Park.</p> <p>Goal 3, Objective 2: Replicate deepwater habitats (sand, rock and deepwater canyon) found in the Soquel Hole SMCA and Point Lobos SMCA (fished) and the Portuguese Ledge SMR.</p> <p>Goal 4, Objective 1: Protect submarine canyon head and small estuary associated with Big Sur River in SMR.</p> <p>Goal 4, Objective 2: Protect in SMR, hard and soft bottom (0-30m, 30-100m), and submarine canyon habitat (30-100m, 100-200m).</p> <p>Goal 5, Objective 1: Approximately half of this proposed SMR already lies within the Recreational and non-trawl RCA. Compared to other areas closer to port, this area is lightly fished by the nearshore fishery, the CPFV fleet (only in the winter and only a few days a month). Sited to reduce impacts to squid fleet by leaving important squid grounds around Hurricane Point and Castle Rock open to fishing. Site optimizes socio-economic benefits due to location adjacent to popular state park at site with exceptional natural heritage values.</p>	<p>Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, China rockfish, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface prickleback, bocaccio, canary rockfish, yellowtail rockfish, yelloweye rockfish.</p> <p>Sole (Dover, English, petrale), sand dab.</p> <p>Market squid, Dungeness crab, sea stars, spot prawns, worms.</p> <p>Ashy Storm-Petrel, Brandt's cormorant, Cassin's auklet, Common murre, pelagic cormorant, pigeon Guillemot, western gull.</p> <p>Giant kelp and other algal species.</p>

			Goal 5, Objective 3: Meet MPF Science Guidelines for size (around 5 miles of shoreline extent, thus below the recommended 6-12 range) and offshore extent.	
Big Creek State Marine Conservation Area	Take of all living marine resources is prohibited except: spot prawn by trap and take of salmon and albacore allowed in waters greater than one mile from shore.	Goal 2 – Obj. 3 Goal 3 – Obj. 2 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 5, 6, 9,	Goal 2, Objective 3: Protect suite of species associated with deep water habitats off the Big Sur Coast (indicators TBD by SAT) while allowing trapping for spot prawns and commercial and recreational fishing for salmon and albacore in waters offshore. Provide additional buffer (by extending alongshore extent of protection for most species) to expanded Big Creek SMR. Goal 3, Objective 2: Provide SMCA that allows spot prawn trapping, salmon and albacore fishing only adjacent to full SMR to provide opportunity to assess impacts of such fishing. Goal 5, Objective 1: Minimize socio-economic impacts by allowing some pelagic fishing to occur in otherwise protected area and allowing spot prawn trapping in area especially important to prawn trappers.	Bocaccio, canary, yelloweye, cowcod, greenspotted, greenstriped, canary, widow, bank, chilipepper, flag, rosy, speckled, starry, yellowtail, and vermillion rockfish, lingcod. Sole (Dover, English, petrale), sand dab. Worms, gorgonians, corals and sponges. Brandt's cormorant, Common murre, Scoters, fulmars. Grey whale.
Big Creek State Marine Reserve	No take. Note: Current regulations applying to diver access at Big Creek do not apply to new areas covered by this proposal.	Goal 1 – Obj. 1, 2, 3, 4, 5 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2, 3 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1, 3 Design Considerations: 1, 2, 3, 4, 5, 6, 8, 9	Goal 1, Objective 1: Protect area of high species diversity associated with deepwater and submarine canyon habitats. Area is within top 20 th percentile for fish diversity. Goal 1, Objective 2: Protect sandy beach, rocky intertidal, Big Creek River mouth, soft and hard bottom habitat (0-30, 30-100, 100-200, >200) and submarine canyon (30-100m, 100-200 m, >200m). Goal 1, Objectives 3: Protect natural age and size of populations associated with this area including indicator species TBD by SAT. Goal 1, Objective 4: Protect natural trophic structure and food webs associated with the diverse communities found in this area including rocky reef species, species associated with deep sandy bottom areas, and deepwater submarine canyon communities including full range of forage and predation interactions from prey species such as juvenile rockfish, squid and Coastal Pelagic Species to top predators such as seabirds and marine mammals. Goal 1, Objective 5: Protect full range of ecosystem functions in area in between upwelling zones. Goal 2, Objective 1: Help maintain healthy populations of overfished rockfish species including bocaccio, yelloweye and canary. Protect forage base for listed seabird and marine mammal species as well as listed fish species. Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of deepwater species including rockfish species. Goal 3, Objective 1: Expand existing SMR adjacent to terrestrial reserve run by the University of California which provides research and educational opportunities and existing baseline data (inside and outside of SMR).	Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, China rockfish, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermillion rockfish, monkeyface prickleback, bocaccio, canary rockfish, yellowtail rockfish, yelloweye rockfish. Sole (Dover, English, petrale), sand dab. Market squid, Dungeness crab, sea stars, spot prawns, worms. Gorgonians, corals and sponges. Brandt's cormorant, Common murre, Scoters, fulmars. Giant kelp and other algal

			<p>Goal 3, Objective 2: Replicate deepwater canyon head in SMR (Point Sur SMR), and outside of SMR (finger canyons in Big Creek SMCA)</p> <p>Goal 3, Objective 3: Adjacent terrestrial reserve managed by University provides good opportunities for linking to classroom curriculum and area has been traditional site for collaborative research projects involving commercial fishermen. Baseline data exists for site.</p> <p>Goal 4, Objective 1: Protect submarine canyon heads in SMR.</p> <p>Goal 4, Objective 2: Replicate in SMR (as required by MLPA Section 2857(c)(3), deepwater habitat found in Portuguese Ledge SMR (30-100m, 100-200 m, and >200m) and submarine canyon habitat found in Point Sur SMR (30-100m, 100-200m) and submarine canyon habitat found in Portuguese Ledge SMR (>200m). Note: MLPA calls for replication of representative habitats across a range of depths. All replication of submarine canyon habitats (at all depth ranges) must occur in the Central Coast Study Area since no canyon habitat occurs within state waters to the north of Pigeon Point.</p> <p>Goal 5, Objective 1: SMR sited to deliberately to maintain fishing access to Several Big Sur Coast sites identified as particularly important to CPFV fleet and nearshore rockfish fishery (such as "Fuller's", "the Slide", Lopez Point, Cape San Martin, and Salmon Creek). Sited to avoid squid grounds south of Lopez Point.</p> <p>Goal 5, Objective 3: Meet MPF Science Guidelines for size (approximately 6 miles of shoreline extent) and offshore extent – extends to 3 nm offshore.</p>	<p>species.</p> <p>Grey whale, harbor porpoise and southern sea otters.</p>
Piedras Blancas State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2, 3, 4, 5</p> <p>Goal 2 – Obj. 1, 2</p> <p>Goal 3 – Obj. 1, 2, 3</p> <p>Goal 4 – Obj. 1, 2</p> <p>Goal 5 – Obj. 1, 3</p> <p>Design Considerations: 1, 2, 3, 4, 6, 7, 8, 9</p>	<p>Goal 1, Objective 1: Protect area of particularly high species diversity including fish, invertebrates, birds (over 250 species), marine mammals (including major rookeries with California sea lion, Elephant seals, harbor seals, Steller's sea lions, northern fur seals) and uniquely diverse algal community (bull kelp and giant kelp).</p> <p>Goal 1, Objective 2: Protect diverse habitats including: sandy beach with diverse cobble size, rocky intertidal, surfgrass bed, kelp forest, pinnacles, hard and soft bottom habitat (0-30m, 30-100 m). No data is available for hard bottom but there is a rocky reef located off Piedras Blancas.</p> <p>Goal 1, Objective 3: Protect natural age and size structure of nearshore and offshore species including indicator species TBD by SAT.</p> <p>Goal 1, Objective 4: Protect natural trophic structure and food webs associated with the diverse communities found in this area including full range of forage and predation interactions from prey species such as juvenile rockfish, squid and Coastal Pelagic Species to top predators such as seabirds and marine mammals.</p> <p>Goal 1, Objective 5: Protect forage for seabirds and marine mammals and protect them from disturbance associated with fishing activities.</p> <p>Goal 2; Objective 1: Help protect bird and marine mammal species of concern by protecting forage base and reducing disturbance associated with fishing activities.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of nearshore and midwater fish and invertebrate species.</p> <p>Goal 3, Objective 1: Site MPA adjacent to newly expanded State Park with high visitor rates, interpretive facilities, docent presence, parking, etc.</p> <p>Goal 3, Objective 2: Replicates range of habitats found at Point Sur SMR and Point Buchon SMR.</p>	<p>Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface pricklyback, Scorpionfish, Dover sole, rex sole, sand dab.</p> <p>Pigeon guillemots, western gulls, Brandt's cormorant, pelagic cormorant, rhinoceros auklets, scoters, brown pelicans, shearwaters, fulmars, red-necked Phalaropes.</p> <p>Limpets, mussels, sea stars, turban snails, worms</p> <p>Southern sea otters, Gray whale, Steller's sea lions, harbor seals, harbor porpoise.</p>

			<p>Existing PISCO monitoring site.</p> <p>Goal 3, Objective 3: Site is well suited to research and monitoring programs with classroom component. Friends of the Elephant Seal program may already have classroom materials developed.</p> <p>Goal 4, Objective 1: Include pinnacles in SMR.</p> <p>Goal 4, Objective 2: Protect and replicate sandy beach, rocky intertidal, surfgrass bed, kelp forest, pinnacles, hard and soft bottom habitat (0-30m, 30-100 m).</p> <p>Goal 5, Objective 1: Although Piedras Blancas is an area used by the CPFV and nearshore rockfish fleets, available data shows it receives far less fishing effort than other areas closer to port that remain open to fishing under this proposal. Also, Cambria SMP will enhance recreational fishing opportunities in nearby area. This SMR optimizes socio-economic benefits by protecting an area with exceptionally high natural heritage values (educational value, visitors, tourism, etc) due scenic value, and presence of easily viewable marine wildlife and seabirds.</p> <p>Goal 5, Objective 3: Meet MPF Guidelines regarding size (7 miles in shoreline extent) and offshore extent (3 nm).</p>	<p>Bull kelp, Giant kelp, other intertidal algal species, surfgrass, sea palm, rock weeds.</p>
Cambria State Marine Park	No commercial take.	<p>Goal 2 – Obj. 3 Goal 3 – Obj. 1, 2, 4 Goal 5 – Obj. 1 Design Considerations: 1, 2, 3, 5, 6, 7, 8, 9</p>	<p>Goal 2, Objective 3: May protect species that are not targeted by recreational fishing effort while allowing recreational harvest of all species.</p> <p>Goal 3, Objective 1: Enhance recreational fishing (including spear fishing, skiff fishing, CPFV fishing) at site traditionally accessed primarily by recreational users that has been depleted by nearshore live fish fishery.</p> <p>Goal 3, Objective 2: Replicate habitats found in adjacent proposed Ken Norris SMR to allow comparison of open, recreationally fished only and unfished sites. Note existing subtidal and intertidal monitoring sites already exist in this immediate area making it especially well suited to this objective.</p> <p>Goal 3, Objective 4: Enhance recreational experience by reducing pressure on species targeted by commercial fishing which may help ensure natural age and size structure for these species and result in improved consumptive recreational experience.</p> <p>Goal 5, Objective 1: Minimize socioeconomic impacts by siting MPA in location distant from port and optimize benefits by enhancing historic recreational fishing areas as SMP.</p>	<p>Since recreational take is allowed, species less likely to benefit from SMP. Species that are not targeted by recreational fishing (such as market squid, benthic invertebrates and Giant kelp) will benefit.</p>
Ken Norris State Marine Reserve	<p>No take.</p> <p>Note: Site is proposed as SMR however an existing kelp bed lease may require a phasing in of this level of protection after lease has expired and can be redrawn. We propose this MPA be established as an SMCA allowing only kelp</p>	<p>Goal 1 – Obj. 2, 3, 4, 5 Goal 2 – Obj. 1, 2, 3 Goal 3 – Obj. 1, 2, 3 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1 Design Considerations: 1, 3, 4, 5, 6, 7, 8, 9</p>	<p>Goal 1, Objective 2: Protect diverse habitats including: sandy beach, rocky intertidal, offshore islets, surfgrass, kelp forest, pinnacles, hard and soft bottom habitat (0-30m, 30-100 m). No data is available for hard bottom but presence of kelp indicates reef.</p> <p>Goal 1, Objective 3: Protect natural age and size structure of nearshore and offshore species including indicator species TBD by SAT.</p> <p>Goal 1, Objective 4: Protect natural trophic structure and food webs associated with representative habitats and communities found in this area including full range of forage and predation interactions from prey species such as juvenile rockfish, squid and Coastal Pelagic Species to top predators such as seabirds and marine mammals.</p> <p>Goal 1, Objective 5: Protect forage for seabirds and marine mammals and protect them from disturbance associated with fishing activities.</p> <p>Goal 2; Objective 1: Help protect bird and marine mammal species of concern by protecting</p>	<p>Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface prickleback, Dover sole, English sole, leopard shark, petrale sole, sand dab, starry flounder, wolf eel. Surfperch, rubber lipped perch, pile surfperch, shiner</p>

	harvesting under the existing lease in any interim period.		<p>forage base and reducing disturbance associated with fishing activities.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of nearshore and midwater fish and invertebrate species.</p> <p>Goal 3, Objective 1: Enhance research and study opportunities at site that is frequently used by researchers, college students and classes to study/monitor both intertidal and subtidal communities. Accessible via pubic stairway at Lampton Park.</p> <p>Goal 3, Objective 2: Replicate habitats found in adjacent proposed Cambria SMP to allow comparison of open, recreationally fished only and unfished sites. Note existing subtidal and intertidal monitoring sites already exist in this immediate area making it especially well suited to this objective. Also, will allow comparison of relatively small SMR (3.5 miles in shoreline extent). Existing PISCO Subtidal monitoring site and baseline data exists for this site and for fished "outside" replicate at Cayucos.</p> <p>Goal 3, Objective 3: Site is frequently used by students for monitoring and research purposes.</p> <p>Goal 4, Objective 2: Protect and replicate sandy beach, rocky intertidal, surfgrass, and shallow to mid-depth soft and hard bottom habitat.</p> <p>Goal 5, Objective 1: Available data shows that this area receives far less fishing effort than other areas closer to port that remain open to fishing under this proposal. Also, Cambria SMP will enhance recreational fishing opportunities in immediately adjacent area. This SMR optimizes socio-economic benefits promoting educational and research opportunities at site with ongoing monitoring and existing baseline studies. Since section of kelp bed within proposed SMR is least convenient for harvester to access and very rarely used, phasing out kelp cutting in this area is not expected to result in adverse socio-economic impacts.</p> <p>Goal 5, Objective 3: Meet minimum MPF Guidelines regarding size (SMR is approximately 3.5 miles in shoreline extent).</p>	<p>surfperch, and walleye surfperch. Starry flounder, surf smelt, top smelt, white croaker.</p> <p>Southern sea otter, harbor porpoise, Steller's sea lion, harbor seals.</p> <p>Brandt's cormorant, brown pelican, pelagic cormorant, pigeon guillemot, scoters.</p> <p>Giant kelp, bull kelp, sea palm, other intertidal algae and surfgrass.</p> <p>Limpets, mussels, sea stars, turban snails, worms</p>
Cambria State Marine Conservation Area	Take of all living marine resources is prohibited except: take of salmon and albacore	Goal 2 – Obj. 3 Goal 5 – Obj. 1, 3 Design Considerations: 1, 3, 4, 5, 6, 7, 8, 9	<p>Goal 2, Objective 3: Allow salmon fishing offshore to minimize socio-economic impacts while providing buffer to SMP and SMR that extends protection for most species to offshore extent.</p> <p>Goal 5, Objective 1: Reduce socio-economic impacts by allowing fishing for some pelagic species (salmon and albacore) offshore.</p> <p>Goal 5, Objective 3: Comply with MPF Science Guidelines regarding offshore extent by providing buffer SMCA that extends to 3 nm from shore.</p>	Lingcod, black rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, gopher rockfish, olive rockfish, kelp greenling, yellowtail rockfish, starry rockfish, speckled rockfish, widow rockfish, vermilion rockfish,
Estero Bluff State Marine Reserve	No take.	Goal 1 – Obj. 1 Goal 3 – Obj. 1 Goal 4 – Obj. 2 Goal 5 – Obj. 1 Design Considerations: 1, 3, 4, 5, 6, 9	<p>Goal 1, Objective 1: Protect intertidal benthic species characteristic of area south of Big Sur coast.</p> <p>Goal 3, Objective 1: Enhance community education and recreational tide-pooling experience by protecting accessible intertidal area adjacent to State Park.</p> <p>Goal 4, Objective 2: Protect and replicate intertidal habitat in SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by siting MPA that has virtually no impact on consumptive activities (more convenient areas in immediate vicinity remain open to shore fishing)</p>	As intertidal SMR that extends to only 3 feet, only likely to benefit invertebrates. Limpets, mussels, sea stars, turban snails, worm.
Morro Bay State Marine	No commercial take.	Goal 2 – Obj. 3	Goal 2, Objective 3: Allow continued use patterns including recreational fishing and mariculture while preventing new impacts.	SMCA unlikely to benefit species since continued

Conservation Area	Mariculture allowed.	Goal 5 – Obj. 1	Goal 5, Objective 1: No socio-economic impacts expected since proposed MPA reflect existing use patterns.	recreational take allowed.
Morro Bay East State Marine Reserve	No take.	Goal 1 – Obj. 1, 2, 3, 4 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2, 3 Goal 4 – Obj. 1 Goal 5 – Obj. 1 Design Considerations: 1, 3, 5, 6, 7, 8, 9	Goal 1, Objective 1: Protect estuarine area with high bird diversity. Goal 1, Objective 2: Protect area with diversity of estuarine habitats – open channel, mud flats, and eelgrass beds. Goal 1, Objective 3: Protect natural age, size structure, and genetic diversity of fish and invertebrate species characteristic of large estuarine system – especially elasmobranchs (nursery) and flatfish. Goal 1, Objective 4: Protect natural structure and food web of estuarine system including forage base (invertebrates) for seabirds, etc. Goal 2, Objective 1: Help protect listed seabirds and southern sea otters by protecting feeding area. Goal 2, Objective 2: Enhance reproductive capacity of both invertebrate and fish species by prohibiting take in important nursery area. Goal 3, Objective 1: Site SMR in area adjacent to museum, State Parks, Morro Bay Estuarine Reserve providing educational and interpretive resources. Goal 3, Objective 2: Protect and replicate representative estuarine habitat in Central Coast Study Area within SMR. Goal 4, Objective 1: Protect estuary in SMR. Goal 5, Objective 1: Site SMR in area that has recently received little fishing effort, and where non-consumptive values likely to be enhanced by the SMR (wildlife watching) are particularly high.	Worms. Kelp greenling, kelp rockfish, longnose skate, monkeyface prickleback, pile surfperch, rainbow surfperch, rubber lip perch, sand sole, shiner surf perch, starry flounder, striped surf perch, top smelt, surf smelt, white croaker, white surfperch, wolf eel. Eelgrass, other intertidal algae. Brandt's cormorant, brown pelican, common murre, double-crested cormorant, least tern, Rhinoceros auklet, pelagic cormorant, pigeon guillemot, grebe, scoters. Southern sea otters.
Morro Bay South State Marine Reserve	No take.	See above.	See above.	See above.
Point Buchon State Marine Reserve	No take.	Goal 1 – Obj. 1, 2, 3, 4, 5 Goal 2 – Obj. 1, 2 Goal 3 – Obj. 1, 2 Goal 4 – Obj. 1, 2 Goal 5 – Obj. 1, 3 Design Considerations: 1, 2, 3, 4, 6, 8	Goal 1, Objective 1: Protect area with high fish and invertebrate species diversity and abundance as well as seabirds and marine mammals. Goal 1, Objective 2: Protect sandy beach, rocky intertidal, and hard and soft bottom habitat in 0-30 m and 30-100 m depth range. Goal 1, Objective 3: Protect natural age and size structure of NFMP species including indicator species TBD by SAT. Goal 1, Objectives 4: Protect trophic structure and food web in area representative of soft bottom and hard bottom shallow water habitats south of Morro Bay. Goal 1, Objective 5: Protect full range of ecosystem functions in area in between upwelling zones. Goal 2, Objective 1: Help protect bird and marine mammal species of concern by protecting forage base.	Corals and sponges, market squid, moon snails, sea hares, sea stars, worms. Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface prickleback, Scorpionfish. California halibut, California skate, sand

			<p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of nearshore and midwater fish and invertebrate species.</p> <p>Goal 3, Objective 1: Site MPA to include CRANE Subtidal monitoring site (fish and invertebrate) with extensive baseline data set collected for power plant monitoring. Site is located 1.2 miles down coast of Point Buchon and 2 miles up coast from Lion Rock.</p> <p>Goal 3, Objective 2: SMR replicate for fished area to the south of the Diablo Security Closure.</p> <p>Goal 4, Objective 1: Protect pinnacles in SMR.</p> <p>Goal 4, Objective 2: Protect and replicate sandy beach, rocky intertidal, pinnacles, kelp, and hard and soft bottom habitat in 0-30 m and 30-100 m depth range in SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by siting SMR on north side of Diablo Security Closure and allowing fishing for salmon in SMCA offshore. Available data shows fishing effort is higher on south side of closure. Available data (Regional Profile maps 9 & 10) suggest that the area between Point Estero and Point Buchon historically received the vast majority of recreational fishing effort. This large area is most accessible to/from Morro Bay is left outside of MPA protection.</p> <p>Goal 5, Objective 3: Site SMR that meets minimum MPF Science Guidelines regarding shoreline extent (7 miles).</p>	<p>dab.</p> <p>Brown pelicans, scoters, grebe, shearwaters, and fulmars.</p> <p>Southern sea otter, harbor porpoise, short-beaked common dolphin.</p>
Point Buchon State Marine Conservation Area	No take of living marine resources except fishing for salmon and albacore allowed.	<p>Goal 2- Obj. 2</p> <p>Goal 2 – Obj. 3</p> <p>Goal 3 – Obj. 2</p> <p>Goal 4 – Obj. 2</p> <p>Goal 5 – Obj. 1</p>	<p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of midwater fish and invertebrate species.</p> <p>Goal 2, Objective 3: Buffer Point Buchon SMR to provide additional protection for benthic species and typical forage species (squid and coastal pelagics) while allowing fishing for salmon and albacore.</p> <p>Goal 3, Objective 2: SMR replicate for fished area to the south of the Diablo Security Closure.</p> <p>Goal 4, Objective 2: Protect and replicate hard and soft bottom habitat in 30-100 m depth range in SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by siting SMR on north side of Diablo Security Closure and allowing fishing for salmon in SMCA offshore. Available data shows fishing effort is higher on south side of closure.</p>	<p>Corals and sponges, market squid, moon snails, sea hares, sea stars, worms.</p> <p>Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown, rockfish, cabezon, copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, vermilion rockfish, monkeyface prickleback, Scorpionfish. California halibut, California skate, sand dab.</p> <p>Brown pelicans, scoters, grebe, shearwaters, and fulmars.</p> <p>Harbor porpoise.</p>
Purisima Point State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2, 3, 4, 5</p> <p>Goal 2 – Obj. 1, 2</p> <p>Goal 3 – Obj. 1, 2</p> <p>Goal 4 – Obj. 1, 2</p> <p>Goal 5 – Obj. 1, 3</p> <p>Design Considerations: 1, 3, 4, 5, 6, 8, 9</p>	<p>Goal 1, Objective 1: Protect area with high seabird, marine mammal, fish and invertebrate species diversity and abundance.</p> <p>Goal 1, Objective 2: Protect high quality habitat associated with dunes, coastal cliffs, kelp forest, estuary, soft bottom, rocky reef and headland (0-30, 30-100 m depth) in southern end of Study Region.</p>	<p>Dungeness crab, rock crab, market squid</p> <p>Cabezon, kelp greenling, lingcod, Lingcod, black rockfish, black-and-yellow rockfish, blue rockfish,</p>

			<p>Goal 1: Objective 3: Protect natural age and size structure of NFMP species including indicator species TBD by SAT.</p> <p>Goal 1, Objectives 4: Protect trophic structure and food web in area representative of habitats south of Morro Bay.</p> <p>Goal 1, Objective 5: Protect ecosystem structure and functions in representative habitat in southern end of Central Coast study area.</p> <p>Goal 2, Objective 1: Help protect bird and marine mammal species of concern by protecting forage base adjacent to colonies and rookeries.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of nearshore and midwater fish and invertebrate species.</p> <p>Goal 3, Objective 1: Site MPA to include PISCO Subtidal monitoring site, MARiNe site and PRBO seabird study area.</p> <p>Goal 3, Objective 2: SMR replicate for fished area at Point Sal.</p> <p>Goal 4, Objective 1: SMR protects import estuary at the mouth of the Santa Ynez River.</p> <p>Goal 4, Objective 2: Protect and replicate sandy beach, rocky intertidal, and hard and soft bottom habitat in 0-30 m and 30-100 m depth range in SMR.</p> <p>Goal 5, Objective 1: Minimize socio-economic impacts by siting SMR far from port to allow closer areas to remain open to fishing. Keep Point Sal and the majority of rocky reef north of Purisima Point open to provide rocky reef open to fishing in nearby vicinity. Available data indicates important squid fishing areas near Point Sal are avoided by siting MPA at Purisima instead.</p> <p>Goal 5, Objective 3: Site SMR that meets minimum MPF Science Guidelines regarding shoreline extent (6 miles) and offshore extent (3 nm).</p>	<p>brown rockfish, cabezon, copper rockfish, grass copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, starry rockfish, sand sole, barred surfperch.</p> <p>Brown pelican, least tern, pigeon guillemot, Brandt's cormorant, western gull, pacific loon, and sooty shearwater.</p> <p>Harbor seal, southern sea otter.</p>
Point Conception State Marine Reserve	No take.	<p>Goal 1 – Obj. 1, 2, 3, 4</p> <p>Goal 2 – Obj. 1, 2</p> <p>Goal 3 – Obj. 2</p> <p>Goal 4 – Obj. 2</p> <p>Goal 5 – Obj. 3</p> <p>1, 3, 4, 6, 9</p>	<p>Goal 1, Objective 1: Protect area with high seabird, marine mammal, fish and invertebrate species diversity and abundance.</p> <p>Goal 1, Objective 2: Protect area with unique oceanographic conditions in transition zone including sandy beach, rocky intertidal, soft and hard bottom habitat (0-30 m, 30-100m).</p> <p>Goal 1, Objective 3: Protect natural age and size structure of NFMP species including indicator species TBD by SAT.</p> <p>Goal 1, Objectives 4: Protect trophic structure and food web in area representative of habitats south of Morro Bay.</p> <p>Goal 2, Objective 1: Help protect 19 NFMP species, listed seabirds and southern sea otters. This MPA reduces conflict between trap fishing (lobster, crab, and live-fish) and threatened sea otters.</p> <p>Goal 2, Objective 2: Protect larval sources and enhance reproductive capacity of nearshore and midwater fish and invertebrate species.</p> <p>Goal 3, Objective 2: Provides replicate for Purisima Point SMR.</p> <p>Goal 5, Objective 3: Meet MPF Science Guidelines regarding shoreline extent (9 miles).</p>	<p>Dungeness crab, rock crab, market squid</p> <p>Cabezon, kelp greenling, lingcod, black rockfish, black-and-yellow rockfish, blue rockfish, brown rockfish, cabezon, copper rockfish, grass copper rockfish, grass rockfish, gopher rockfish, olive rockfish, kelp greenling, kelp rockfish, starry rockfish, sand sole, barred surfperch.</p> <p>Brown pelican, least tern, pigeon guillemot, Brandt's cormorant, western gull, pacific loon, sooty shearwater</p>

				Harbor seal, southern sea otter.
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December 15, 2005

Chair Philip Isenberg and
Members of the MLPA Blue Ribbon Task Force
Chair Steven Barrager and
Members of the MLPA Science Advisory Team
c/o California Resources Agency
1416 9th Street #1311
Sacramento, CA 95814

RE: Support and Justification for MPA Package 2

Dear Members of the MLPA Blue Ribbon Task Force and Science Advisory Team:

Please accept the following background information regarding the intent, development and evolution of MPA Package 2. We hope this information will be useful to you as you continue the important work of implementing the Marine Life Protection Act in the coming months.

Package 2 was developed by a diverse coalition of Regional Stakeholder Group (RSG) members including scientists who have studied the Central Coast area for decades, divers with literally thousands of hours underwater along these shores, fishermen from the Central Coast's oldest recreational fishing club, artists and photographers whose inspired works reflect the beauty of the sea, educators who have taught students and community members the ecology and natural history of the Central Coast, and conservationists working to protect the full range of species and habitat diversity, making our area one of the most productive on earth.

This diverse group worked together over the past six months to create a proposal that strikes a balance – protecting some of the Central Coast's most diverse and productive coastal habitats, while leaving most of our coastal waters open for fishing and other activities. Our proposal reflects our collective knowledge and values as well as the guidance we have received from the Science Advisory Team (SAT) and the staff, and direction provided by your Task Force.

In summary, this letter addresses the following issues:

- Overall Rationale for Package 2
- Components of Package 2
- Requirements of the MLPA
- Existing MPAs and the Gap Analysis
- RSG Goals and Objectives
- Response to SAT Guidance
- Response to Blue Ribbon Task Force (BRTF) Guidance
- Modifications to Address Socio-Economic Concerns

Overall Rationale for Package 2

In developing this proposed network of Marine Protected Areas (MPAs), we started with the Marine Life Protection Act itself. This proposal is designed to directly address the fundamental problem identified with California's existing system of marine protected areas: "the array of MPAs creates the illusion of protection while falling far short of its potential to protect and conserve living marine life and habitat."¹ We have designed a network of marine protected areas that we believe provides strategic and significant conservation value and can effectively act as an ecological network. The philosophy reflected in this proposal is to provide high-level protection to important ecological areas of the Central Coast to protect the widest range of species and habitats. We have taken socio-economic considerations into account every step of the way and deliberately designed these MPAs to both minimize socio-economic impacts and to optimize the many benefits associated with MPAs. Our proposal has changed and evolved over time, reflecting both input from all stakeholders and scientific advice. This proposal includes: 22 State Marine Reserves (SMRs), 1 State Marine Park (SMP), and 10 State Marine Conservation Areas (SMCAs). Overall, this proposal includes approximately 14% of the Central Coast Study Area (CCSA) in SMRs and 23% in MPAs.

The Requirements of the MLPA

Package 2 is designed to meet both the letter and the spirit of the Marine Life Protection Act. In 1998, the California Legislature adopted the MLPA on a 2:1 vote, reflecting both the primary importance of ocean resources to the state of California and an awareness that the biological diversity of our coastal waters was at risk. The message of the Act is clear: the status quo is not sufficient and a new system of well-designed, scientifically meaningful marine protected areas is necessary. The MLPA requires that MPA proposals be designed to ensure meaningful protection. In other words, it is not enough to simply create more MPAs, what is required is a system of MPAs that is capable of achieving a substantive and meaningful increase in protection. In the words of the Act itself:

The MPA network and individual MPAs shall be of adequate size, number, type of protection, and location to ensure that each MPA meets its objectives and that the network as a whole meets the goals and guidelines of [the Act].²

Our proposal emphasizes marine reserves and highly protected marine conservation areas because high levels of protection are necessary to meet the stated goals of the Act and because the MLPA specifically requires: "[a]n improved marine life reserve component consistent with the guidelines in subdivision (c) of Section 2857."³ The MLPA directs that "[m]arine life reserves in each bioregion shall encompass a representative variety of

¹ Fish and Game Code Section 2851 (a).

² Fish and Game Code Section 2857 (c)(5).

³ Fish and Game Code Section 2853 (c)(1).

marine habit types and communities, across a range of depths and environmental conditions”⁴ and that “[s]imilar types of marine habitats and communities shall be replicated, to the extent possible, in more than one marine life reserve in each biogeographical region.”⁵ Although the MLPA is largely focused on ecological goals, it also requires protection of natural heritage values and protection of areas for their intrinsic value.⁶

Following the law, Package 2 includes SMRs that cover a representative variety of marine habitat types and communities across depth ranges and oceanographic conditions. SMRs protect and replicate sandy beaches, persistent kelp beds, eelgrass and surfgrass beds, rocky intertidal areas, estuaries (large and small), soft and hard bottom habitats from nearshore to deepwater, and submarine canyon habitat from the very nearshore head of the Carmel Canyon to a portion of the Monterey Canyon that lies in nearly 5000 feet of water. In designing Package 2, we recognized that any replication of submarine canyon habitat (across the range of depths) must occur within the Central Coast Study Area as there are no submarine canyons within areas north of Pigeon Point.

Package 2 is anchored by a network of SMRs at key ecological sites: Ano Nuevo, the Monterey Canyon, Point Lobos, Point Sur, Piedras Blancas, Point Buchon and Point Conception. The SMRs proposed for these areas are designed to comply fully with the Science Guidelines contained in the Master Plan Framework regarding shoreline extent, offshore extent, area, and spacing to provide meaningful protection to a wide range of species and habitats as required by the law. These Package 2 “anchor sites” – our Yosemites – are often at important headlands. The convergence of biology, oceanography and geography created the science guidance to look especially hard at headlands. These are areas of upwelling and larval retention. The productivity associated with headlands drives species abundance and diversity. To capture this area of convergence requires space: We have sited our largest MPAs at or near major headlands.

Where possible, we have sited and designed SMRs to achieve multiple habitat objectives in one location. Examples such as Point Sur SMR and Piedras Blancas SMR are areas where multiple habitat types are found in close proximity to each other, providing unique opportunities to protect areas with exceptionally high biodiversity. These areas include concentrations of seabirds and marine mammals as well as diverse fish and invertebrate communities. Such areas also possess exceptional natural heritage values that cannot be provided at substitute sites.

Not all of our proposed MPAs are designed primarily to achieve ecological goals. Package 2 includes areas that are important for education, public access, recreation, and research and monitoring as required by the MLPA.⁷ Three small intertidal MPAs (Baldwin Creek to Natural Bridges SMR, Opal Cliffs SMCA, and Estero Bluffs SMR)

⁴ Fish and Game Code Section 2857 (c) (2).

⁵ Fish and Game Code Section 2857 (c) (3).

⁶ Fish and Game Code Section 2853 (b) (4).

⁷ Fish and Game Code Section 2853 (b)(3).

are included specifically to meet educational and research goals. We fully recognize that these MPAs are unlikely to achieve a broad range of ecological goals due to their very limited size. Existing MPAs that primarily serve research purposes at Hopkins Marine Station and Big Creek are proposed for expansion to better meet scientific guidelines. Recognizing the importance of baseline data and ongoing scientific monitoring, we have been careful to site SMRs in areas where historic research data is available and where partner institutions may provide ongoing monitoring. Examples include Baldwin Creek to Natural Bridges SMR, Soquel Canyon SMCA, Portuguese Ledge SMR, Hopkins SMR, Ken Norris SMR and Point Buchon SMR.

Several small MPAs are proposed in the vicinity of the Monterey Peninsula and Carmel Bay with the primary goal of enhancing education and non-consumptive recreation including SCUBA diving, kayaking and wildlife watching from shore. This area has an extremely high rate of shoreline visitors, excellent shore access, and is renowned as the top dive destination on the West Coast. Given the exceptional value of living marine resources in this particular section of the Central Coast Study Area, we have taken a zoning approach to minimize user conflicts and maximize benefits overall. Package 2 includes one State Marine Park (SMP) designed to both enhance recreational uses and replicate habitats with different MPA status to monitor differences between fished and unfished sites. The Cambria SMP is sited immediately adjacent to the Ken Norris SMR to allow such comparative studies.

Existing MPAs and the Gap Analysis

This proposal follows the direction of the MLPA with regards to existing MPAs: “It is necessary to modify the existing collection of MPAs to ensure that they are designed and managed according to clear, conservation-based goals and guidelines that take full advantage of the multiple benefits that can be derived from the establishment of marine life reserves.”⁸ We have taken an adaptive management approach to existing MPAs, recommending improvements where appropriate and eliminating MPAs that do not provide significant ecological benefits. We propose modification to eight of the existing MPAs on the Central Coast consistent with the recommendations contained in the Evaluation of Existing Central Coast MPAs. Changes are made to the Año Nuevo Special Closure, Elkhorn Slough SMR, Hopkins SMR, Pacific Grove SMCA, Point Lobos SMR, Julia Pfeiffer Burns SMCA, and Big Creek SMR, to improve the effectiveness of these MPAs and ensure better consistency with the MLPA, the MPF Scientific Guidelines and the Regional Goals and Objectives. We propose elimination of five of the existing MPAs in the Central Coast: Atascadero Beach SMCA, Morro Beach SMCA, Pismo SMCA, Pismo-Oceano Beach SMCA, and Vandenberg SMR. According to the Evaluation of Existing Central Coast MPAs, four of these MPAs were designed to protect only one species (Pismo clams) and are not meeting their original objectives. Significantly, the original Master Plan Science Team also recommended eliminating these five existing MPAs.

⁸ F&G Code Section 2851 (h).

We have focused special attention on habitats identified in the Gap Analysis section of the Evaluation of Existing Central Coast Marine Protected Areas. These gaps include estuaries, persistent kelp beds, seagrass habitats, pinnacles and submarine canyon across a range of depths, rocky habitat across a range of depths and deepwater habitat with both soft and hard bottom. As demonstrated by the Science Team's preliminary evaluation, Package 2 fills these gaps in protection.

RSG Goals and Objectives

Individual Goals and Objectives for each Package 2 MPA are documented in the "Form for Providing Input on MPA Specific Objectives and Species Likely to Benefit" and are not repeated here. We believe this documentation shows that Package 2 does an excellent job of meeting all of the goals and objectives identified and adopted by the Central Coast Regional Stakeholder Group.

Response to SAT Guidance

We took very seriously the Science Advisory Team (SAT) member's specific recommendations on how to improve Package 2 to ensure it fully complies with the "best available science." We had extensive discussions with members of the SAT to better understand the scientific gaps in our proposal and our options to improve our Package to ensure full compliance with the science guidelines. We made the following changes to our proposal to address issues raised in the preliminary scientific evaluation. We start by addressing guidance specific to Package 2 and then address general guidance that applies to all of the packages including Package 2.

Scientific Recommendation: "The four MPAs in the Año Nuevo area are disjointed and could be simplified by creating one SMR and one SMCA in order to provide protection of forage species for marine vertebrates."

Change to Proposal 2: We have deleted two of the proposed MPAs at Año Nuevo, consolidating protection in this area in accordance with SAT advice. We retained two SMRs – one designed to protect intertidal and very nearshore communities in the areas immediately adjacent to the shoreline and Año Nuevo Island, and to provide a buffer to reduce disturbance to seabirds and marine mammals. The other retained SMR, in the lee of Point Año Nuevo, is designed to meet the MPF Science Guidelines on size, spacing, offshore extent, providing a high level of protection for representative habitats and communities to the north of Monterey Bay and protecting some forage grounds utilized by seabirds and marine mammals that inhabit the Año Nuevo area.

Scientific Recommendation: "The MPA at Point Lobos ends just short of the end of the reef at Yankee Point. This will result in reduced conservation value (because fish could leave the MPA and get caught) but may result in fishery benefits or scientific benefits by providing an opportunity to test the value of protecting only a portion of a reef."

Change to Proposal 2: Point Lobos SMR was extended south to include the entire reef at Yankee Point.

Scientific Recommendation: Package 2 had a spacing gap for soft bottom (0-30m) habitat between Morro Bay and Point Conception.

Change to Proposal 2: Purisima Point SMP was eliminated. Purisima Point SMR was moved south and extended to bring in more shallow soft bottom habitat. By making this change we expect Package 2 to meet spacing guidelines for all habitat types.

Scientific Recommendation: Package 2 MPA size breakdown: 33% are small, 33% are minimum, 29% are middle and 5% are ideal.

Change to Proposal 2: In an effort to provide an improved mix of MPA sizes without increasing the overall amount of area within MPAs, we eliminated six MPAs (Pigeon to Franklin SMR, Año Nuevo SMCA, Partington Canyon SMR and SMCA, Salmon Creek SMR, Morro Bay Intertidal SMR and Purisima Point SMP). We then slightly expanded the shoreline extent of Big Creek SMR, Piedras Blancas SMR, and Purisima SMR to move these sites into the “middle” size range to provide improved protection for a wider range of species. Although Package 2 still contains several MPAs that are “small,” these sites are not designed to meet scientific size and spacing guidelines as they are generally designed for research, education or recreational purposes rather than to achieve ecological goals. Due to our efforts to reduce socio-economic impacts, Package 2 has only one SMR in the “ideal” size range (Conception SMR at 9 miles long).

Science Recommendation: “Some of the MPAs designed were clearly attempts at compromise between different user groups. The SAT applauds these attempts at compromise amongst different stakeholder. Although compromise between users is good, we must caution that sometimes compromise comes at the expense of failing to achieve conservation goals.”

Change to Package 2: We have tried to ensure that efforts to address stakeholder’s concerns do not result in the design of MPAs that are unlikely to achieve their stated goals. In an effort to ensure that all of the Package 2 MPAs designed primarily for ecological purposes will be effective, we have eliminated some sites, choosing to consolidate MPAs to reduce socio-economic concerns while ensuring the effectiveness of protection of remaining sites.

Science Recommendations: There is value in having a SMCA adjacent to a SMR in similar habitats and water depths to allow for an evaluation of the relative benefits of each type of level of protection.

Change to Package 2: To the Big Creek SMR, we have added an adjacent Big Creek SMCA that allows for offshore salmon and albacore fishing and spot prawn trapping in the canyon heads.

Science Recommendations: Habitats associated with headlands should be considered as high priority for protection because of their link to zones of upwelling, increased productivity, and larval and juvenile retention. Because headlands are more exposed to coastal current regimes, they are also likely to act as good source locations for enriching adjacent unprotected areas and facilitating connectivity within the MPA network. These zones are noted feeding areas for birds, marine mammals, fishes and turtles.

Change to Package 2: We have included the following headland areas in MPAs (with a mix of areas that include areas both up-coast and down-coast of the headland): Año Nuevo, Point Sur, Piedras Blancas, Point Buchon, Purisima Point, and Point Conception. Notably, we have left several major headland areas outside of MPA protection to facilitate scientific comparison and to minimize socio-economic impacts, including Pigeon Point, Franklin Point, Hurricane Point, Grimes Point, Lopez Point, Ragged Point, Point Sal and Point Arguello.

Response to BRTF Guidance

We made a serious effort to follow the advice and guidance of the Blue Ribbon Task Force (BRTF) in modifying the Package 2 proposals.

BRTF Guidance: Give considerable weight to advice of SAT.

Change to Package 2: See previous responses to SAT on pages 5 and 6.

BRTF Guidance: Look seriously at areas of overlap and work to develop more unified approaches for some geographic areas.

Change to Package 2: We have added Moro Cojo SMR (also found in Packages 1 & 3), added an offshore SMCA to buffer our Point Buchon SMR (both Packages 1 & 3 have an offshore MPA in this vicinity), and eliminated a small intertidal SMR at Morro Bay (not included in Package 3).

BRTF Guidance: Reduce the number of geographic areas for which alternative packages contain competing proposals.

Change to Package 2: We have eliminated 6 of our proposed MPAs – all were sites that were not included in Packages 1 or 3 and consolidated our MPAs to allow for more efficient management, monitoring and enforcement.

BRTF Guidance: Preference to see bounded (reduced) number of packages forward to BRTF.

Change to Package 2: Proponents of Package 2 and Package 2B agreed to consolidate their proposals to limit the number of Packages going forward to the BRTF for review. Proponents of Package 4 agreed to support Package 2.

Modifications to Address Socio-Economic Concerns

From the beginning, we have made a serious effort to reduce socio-economic concerns, consistent with achieving meaningful conservation protection. Our approach has been to review all available data to meet and talk with all stakeholders in our efforts to get the best possible understanding of the use patterns throughout the Central Coast and to be flexible in siting MPAs. The challenge before us and before the Blue Ribbon Task Force, is that it is simply not possible to design a meaningful network of MPAs in the Central Coast without affecting existing use patterns. We do not claim that Package 2 will not have an impact on some existing users but we have tried very hard to ensure that any impacts will not be disproportionately borne by any set of users. We have also tried to ensure that users potentially impacted by siting of a particular MPA retain access and other opportunities in the nearby area.

We have provided an analysis of socio-economic issues (listed under Goal 5, Objective 1) for each MPA in our package in the “Form for Providing Input on MPA Specific Objectives and Species Likely to Benefit.”

Conclusion

We urge your careful consideration of Package 2: we believe it meets the requirements of the law, reflects the best available science, addresses the concerns and values of the widest range of Californians and provides a high level of protection for some of our state’s most diverse and spectacular coastal areas. In short, we believe that Package 2 is designed “according to clear, conservation-based goals and guidelines that take full advantage of the multiple that can be derived from the establishment of marine life reserves.”⁹

We are proud to have been a part of this important process and offer our continued assistance to support your Task Force as you help craft a meaningful network of protected areas for all Californians.

Sincerely,

⁹ Fish and Game Code Section 2851 (h).

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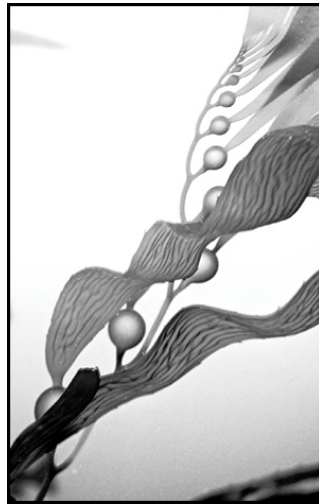
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An MPA Network for the Central Coast

PACKAGE 2

Supplemental Materials



Goals for Sub-Regions & Site Rationales and Development

January 12, 2006

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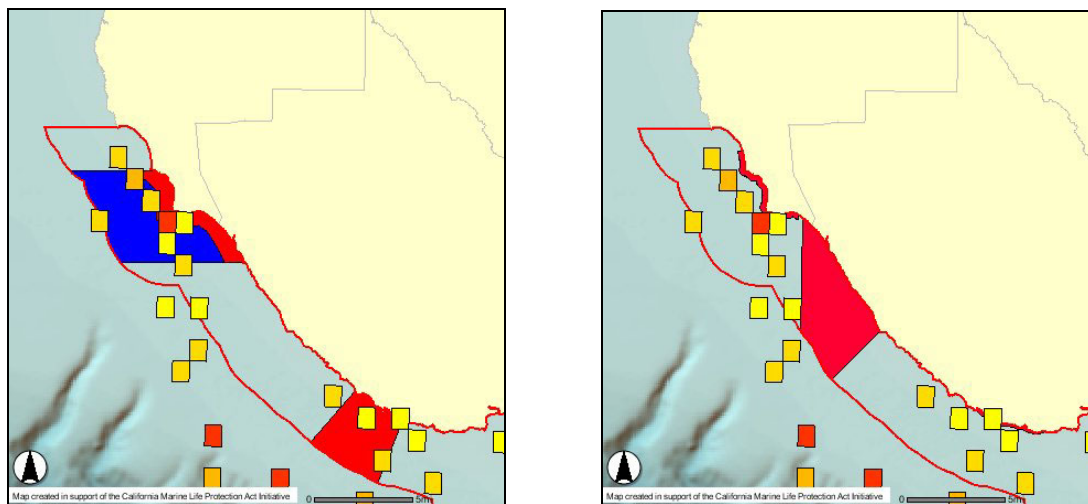
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Pigeon Point to Capitola

Overall Goals for Sub-Region:

- Provide ecologically meaningful MPA protection in an area of the Central Coast Study Area (CCSA) that is currently unrepresented in MPAs.
- Protect seabird and marine mammal forage, roosting and breeding areas near Point Año Nuevo including Año Nuevo Island.
- Protect the range of habitats (across depth range) and biological communities that are representative of this sub-region in SMRs.
- Protect some of the highly productive waters of the Davenport upwelling cell in SMR that fully complies with the Master Plan Framework (MPF) Scientific Guidelines.
- Improve research and study opportunities by siting an MPA adjacent to the University of California at Santa Cruz marine laboratory.
- Improve educational and non-consumptive use values by siting MPAs in areas with good public access and high visitation rates.

Negotiations and Evolution of Proposal: This sub-region contains a variety of high quality habitat suitable for protection in MPAs. For example, the Año Nuevo area has extraordinary biological and natural heritage values, shale reefs are found only off the coast between Santa Cruz and Davenport, and Soquel Point (off of Capitola) is the only documented larval retention area in the CCSA. Significantly, there are no existing MPAs in this sub-region. From a conservation perspective, the ideal set of MPAs for this area would include significantly sized SMRs centered on Point Año Nuevo, capturing representative shale reef habitat north of the Santa Cruz city limits, and protecting some of the reef that lies off of Capitola. However, during the Regional Stakeholder Group (RSG) process, consumptive stakeholders expressed strong concerns about the potential socio-economic impacts of such proposals. We have worked extensively with consumptive interests (especially recreational fishermen and commercial squid fishermen) in crafting the following far more modest proposal. The MPAs proposed below address some of the key conservation goals for this sub-region while eliminating most of the socio-economic concerns that were raised by the fishing community.



Left: Package AC with Commercial Passenger Fishing Vessel (CPFV) rockfish trip data overlaid. Right: Data demonstrates Package 2 proposal avoids impacts to CPFV fleet. Results are similar for data from recreational private boats.

Gazos to Año Nuevo State Marine Reserve

Fishing Regulations: No take.

Overall Goal: The overall goal of this narrow SMR is to protect a diverse intertidal community and to provide a minimal buffer for a variety of seabird and marine mammal species that inhabit Año Nuevo Point and Island. The proposed SMR is designed to help protect sensitive and listed species from disturbance associated with fishing boats and fishing activities, protect a very limited amount of forage area for these species, and protect intertidal invertebrates. The proposed boundaries expand on an existing seasonal closure to reflect the bare minimum that scientists and managers have identified as useful in reducing documented disturbance impacts to large marine mammal and bird rookeries. The proposed SMR is not large enough to protect adjacent estuarine, pelagic and benthic habitat. Nor would the proposed SMR contain most of the prime marine mammal and bird foraging area adjacent to important breeding colonies.

Socio-Economic Considerations: The proposed Gazos to Año Nuevo State Marine Reserve is expected to have little if any negative socio-economic impact. Under most conditions it is dangerous for boats to get close to the shoreline and rocks in this high wave energy area, therefore little fishing occurs within ¼ mile from shore. However, the potential disruption caused by even a few vessels fishing close to shore could result in very severe impacts to nesting seabirds. By precluding fishing in this small buffer area, we expect to reduce disturbance impacts associated with vessels (lights, noise, entanglement). Conservation interests would be far better served by a larger SMR in this area (one that extended at least a mile from shore).

Davenport State Marine Reserve

Fishing Regulations: No-take. We recognize that this proposed SMR contains a portion of an existing leased kelp bed. We propose that the affected lease be redrawn at the earliest possible opportunity to withdraw the affected area from lease and prohibit kelp harvest within the SMR.

Overall Goal: Protect in SMR the range of species and habitats (across depth range) that are representative of this sub-region of the study area including rocky cliffs, estuarine areas, intertidal zones, rocky reefs, shale beds and other hard ocean substrates, sandy or soft ocean substrates, and Bull Kelp forests, within an area identified as a productivity and biodiversity hotspot in central California (the Davenport upwelling cell). This SMR would protect some of the critical forage area for a variety of seabirds including the federally listed marbled murrelet. Existing MARiNe and PISCO monitoring sites are located within this SMR (at Scotts Creek). We expect this SMR to be of sufficient size and protection to effectively function as a component of a network.

Socio-Economic Considerations: The proposed Davenport State Marine Reserve could result in some displacement of the squid and Dungeness crab fisheries. However, the boundaries of this SMR were drawn specifically to minimize impacts to the squid fishery (thus the triangle shape of the SMR) and data shows that important squid grounds in adjacent areas (the lee of Franklin Point and between the Santa Cruz city limits and the town of Davenport) would remain open to fishing in this proposal. Although some crabbing occurs in the deeper water portions of

the proposed SMR, far more heavily utilized crab grounds to the north of Point Año Nuevo are unaffected. Available data suggests that little, if any, recreational fishing occurs within the proposed Davenport SMR (since recreational fishers chose to either fish closer to port or go to the preferred fishing spot offshore of Point Año Nuevo itself which we have therefore kept open to fishing). Regional Profile Maps 8 & 9. The proposed SMR would likely have less positive socio-economic benefit as compared to a similarly sized SMR centered on Point Año Nuevo itself, which would maximize benefits to nonconsumptive recreational users and shoreline visitors to the popular adjacent State Park.

Baldwin to Natural Bridges State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Protect nearshore and intertidal habitat and communities and enhance research and educational values at site with high benthic invertebrate diversity adjacent to a university marine laboratory and to two popular State Parks. This area has excellent public access, ample parking, and high visitation rates. Adjacent Natural Bridges State Park offers educational opportunities through an existing docent program, interpretive signage, and a visitor center. Baseline monitoring exists for this site and ongoing intertidal monitoring occurs in the proposed SMR (CRANE and PISCO).

Socio-Economic Considerations: This small SMR covers over 4 miles of shoreline but extends only to a depth of 20 feet and is not expected to impact existing fishing activities in any significant way. Conservation and research interests would be far better served by an SMR in this area that extended into deeper waters and protected a wider range of species and habitats (a minimum of one mile from shore). Agreement to limit this to an intertidal site was a significant concession to fishing interests on the RSG that was made in an effort to maintain virtually all of the area in proximity to Santa Cruz harbor open without restriction.

Opal Cliffs State Marine Conservation Area

Fishing Regulations: Take of all living marine resources is prohibited except the recreational take of finfish by rod and reel from shore.

Overall Goal: Protect extensive intertidal surfgrass habitat and communities and enhance non-extractive recreational values on a mudstone platform with one of the largest surfgrass beds in central California.

Socio-Economic Considerations: This proposed SMCA is tiny (only 0.2 square miles), is limited to 12 feet in depth, and is designed to allow continued limited rod and reel fishing from the shoreline rocks. As a result, the proposed SMCA will essentially eliminate any impacts to fishing while providing some improved protection to species characteristic of surfgrass beds. The proposed SMCA would preclude clam collection in this area where clams are found nestled within the surfgrass and collection of clams is destructive of the sensitive surfgrass habitat. Other opportunities to collect clams (in less vulnerable boulder areas) would remain open in areas such as Point Santa Cruz, a nearby and more popular clamming location. Conservation

interests would be far better served by a larger MPA that provided protection for a wider range of species and habitats. Limiting this SMCA to the proposed design and not proposing MPA protection for any of the significant reef off of Santa Cruz and Capitola was a significant concession to fishing interests on the RSG.

Capitola to Monterey Breakwater

Overall Goal for Sub-Region:

- Provide meaningful protection for important deepwater and estuarine habitats that are currently not represented or are underrepresented in MPAs in the CCSA.
- Help meet MLPA's requirement for replicating deepwater habitats in marine reserves.
- Improve the conservation value of the existing small Elkhorn Slough SMR.
- Improve protection for very high quality deepwater sites (Soquel Canyon and Portuguese Ledge) including submarine canyon habitat representing a wide range of depths along with the species assemblages and the fullest possible range of ecosystem functions associated with these habitats including protection of forage species for predators (fish, seabird and marine mammal).
- Restore deepwater rockfish populations at sites depleted by historic fishing activities.
- Provide an opportunity to compare the impacts of a fully protected deepwater SMR to a SMCA that allows both limited pelagic fishing and spot prawn trapping.
- Site MPAs to take advantage of baseline monitoring (existing submersible survey data).

Development and Evolution of Proposal: The proposal for an expanded Elkhorn SMR was developed after conversations with representatives from the Elkhorn Slough Estuarine Research Reserve and scientists who have performed long-term monitoring in this area. We adopted the fishing community's proposal for the Moro Cojo SMR. The deepwater sites were selected based on information from scientists who have explored the Monterey Submarine Canyon in submersibles and both sites have baseline monitoring data available. We have modified the DFG Initial Draft Concept maps based on additional mapping information provided by Oceana to try to minimize the amount of soft bottom habitat (where crabbing and other fishing activities occur) and maximize the amount of hard canyon wall in this proposal. Recognizing the importance of Soquel Canyon to both recreational and commercial salmon fisheries and to at least one spot prawn trapper, we have proposed this area as a SMCA that would allow salmon and albacore fishing and spot prawn trapping. Fishing representatives have raised some concerns about prohibitions on take of baitfish in the deepwater MPAs. These species (such as herring, mackerel, sardines and anchovies) provide critical prey resources to fish, seabirds and marine mammals and fishing opportunities for such species abound in adjacent areas not proposed for MPA protection.

Elkhorn Slough State Marine Reserve

Regulations: No-take.

Overall Goal: Protect the range of rare coastal wetland and estuarine habitats including eelgrass, salt marsh mudflats, and tidal channels. The proposed SMR would improve protection for important fish nursery grounds and roosting, forage, and haul-out areas for birds and marine

mammals including many species of concern. Elkhorn Slough SMR would also provide a replicate for the MPAs proposed for Morro Bay Estuary. Large estuaries have been identified as areas of regional biodiversity significance in the Regional Profile and are called out for additional protection in the MPF: “Given the[ir] critical ecological roles and ecosystem functions, estuaries warrant special delineation as a critical California coastal habitat.” MPF at 43. Seagrass beds are specifically called out for protection in the MLPA itself.

Socio-Economic Considerations: Very little fishing occurs with the Elkhorn Slough itself and there are many opportunities to fish in the nearby area. Extending the SMR to include the Vierra mudflat might affect some historical bait collection. However, the value of the native invertebrates to the ecosystem clearly outweighs their value as bait. Shorefishing opportunities exist at nearby state beaches and at Moss Landing Harbor. By protecting an important fish nursery and wildlife viewing area, the expanded Elkhorn Slough SMR is expected to contribute to positive socio-economic impacts for all users.

Moro Cojo State Marine Reserve

Regulations: No-take.

Overall Goal: Protect the range of wetland and estuarine habitats including eelgrass, salt marsh mudflats, and tidal channels.

Socio-Economic Considerations: This MPA was recommended by fishing interests. Because no known fishing or invertebrate collection occurs in this area, the value of making this area an MPA may be negligible and it is not expected to result in any socio-economic impacts.

Soquel Canyon State Marine Conservation Area

Fishing Regulations: Take of all living marine resources is prohibited except take of salmon and albacore and take of spot prawns by traps.

Overall Goal: The proposed SMCA is specifically designed to include an entire branch of the Monterey Submarine Canyon within an MPA. This SMCA would improve protection for high value representative submarine canyon habitat across a wide range of depths (from 75 meters to over 1300 meters) as well as the biological communities associated with such habitat. However, the SMCA would not meet the replication of representative habitat requirements of Fish and Game Code Sections 2857 (c) (2) & (3). Notably, Package 1 proposals for MPAs in the Monterey Submarine Canyon limit any improved protection to very deep area (more than 500 meters) and thus do not protect the same range of habitat and species diversity. This SMCA is designed to improve protection for depleted deepwater rockfish species such as bocaccio, canary, and yelloweye rockfish by protecting high quality natural refugia in areas where large individuals of these species have been documented by submersible surveys. This site is within the top 20th percentile for fish and seabird diversity. The proposed SMCA meets the Regional Profile’s description of an area of regional biological significance based on high bathymetric complexity. Regional Profile at 31. This site was proposed for protection in the Draft Initial

Concepts, the Revised Draft Initial Concepts. Portions of the MARS submarine cable will be located in this SMCA, providing a unique opportunity for ongoing monitoring of this MPA.

Socio-Economic Considerations: From a conservation and research perspective, Soquel Canyon is an ideal site for a deepwater SMR as it contains an entire branch of the Monterey Submarine Canyon across a range of habitat depths and quality that is not found anywhere else in the Central Coast Study Area. We originally proposed this area as an SMR. However, Soquel Canyon is also a favored fishing spot for both the commercial and recreational salmon fleets and is used extensively by at least one spot prawn trapper. Rockfish fishing is currently prohibited in this area under the Rockfish Conservation Area. Regional Profile Map 14. In a significant concession to fishing interests on the RSG, we have proposing this area as an SMCA and not an SMR. We remain concerned that spot prawn traps may result in bycatch of benthic species (and even cetaceans) that this SMCA is designed to protect. This SMCA may provide a comparison for monitoring purposes with similar habitats protected in the deepwater portions of the proposed Portuguese Ledge SMR. Such comparison may allow analysis of any potential impacts associated with prawn trapping and/or salmon and albacore fishing in an otherwise protected MPA.

Portuguese Ledge State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Restore depleted benthic species (especially deepwater rockfish) and protect high quality benthic habitat and pelagic offshore habitats and the biological communities associated with these habitats. The proposed SMR would protect the full range of ecosystem functions and processes including trophic interactions such as top-level predator fish, seabird, and marine mammal foraging. The area includes high quality habitat, in an upwelling zone, within an area that was historically abundant with fish but is now depleted. The proposed SMR is within the top 20th percentile for seabird density and diversity and the top 20th percentile for fish density. This site includes rocky reef interspersed with soft bottom substrate in a range of depths from approximately 100 meters to over 1600 meters). This SMR fills a gap identified in the current system of MPAs by protecting deepwater habitat including rock, sand and hard canyon wall and helps meet the MLPA's requirement for replicating such habitat types in marine reserves. Fish and Game Code Sections 2857 (c) (2) & (3). According to the 2001 Draft Initial Concepts proposal, this site has been depleted of large groundfish but has excellent habitat, making it a prime candidate for restoration and recovery. This site was proposed for protection in both the Draft Initial Concepts and the revised Draft Initial Concepts.

Socio-Economic Considerations: This site is designed specifically to minimize socio-economic impacts because it is located in an area that is currently closed to rockfish fishing under RCA designations. We understand that some spot prawn trapping does occur within the proposed SMCA but that this area is far less important to the fishery than Soquel Canyon where spot prawn trapping could continue under this proposal. In addition, most of the main stem of the Monterey Canyon remains open to fishing in Package 2, allowing continued fishing in a large area of similar habitat that is easier to access from Moss Landing harbor.

Monterey Breakwater to Point Sur

Overall Goal for Sub-Region:

- Enhance and restore quality of non-consumptive recreational experience including activities such as diving, kayaking, and shoreline wildlife viewing in area with excellent public access and exceptionally high visitation rates.
- Maintain reasonable opportunities for diverse commercial and recreational consumptive activities such as commercial fishing, kelp cutting, and recreational angling and spearfishing.
- Respect grassroots and community interest in protecting areas of special interest.
- Protect the range of habitats (across depth range) and biological communities that are representative of this sub-region in SMRs.
- Enhance scientific monitoring opportunities and to improve compliance (in the case of the Point Lobos SMR and SMCA) with the MPF Scientific Guidelines.
- Protect unique features – Cypress Pinnacles and the head of Carmel Submarine Canyon in SMRs.

Development and Evolution of Proposal: The MPAs proposed for this sub-region were selected based on extensive discussions with a wide variety of consumptive and non-consumptives stakeholders. Given the concentrated and potentially conflicting use patterns along the shores of the Monterey Peninsula, we have proposed what is essentially a “zoning” approach in this area. The result is a series of relatively small and shallow MPAs designed to achieve very specific goals, provide access to the full range of users, and spatially separate conflicting uses. The mapping project for the entire sub-region was a collaborative effort between conservation and recreational diving representatives, as well as members of the Monterey Peninsula communities whose shores touch these areas. Although consumptive stakeholders have raised concerns about the potential impacts of the SMRs proposed for this sub-region, it is important to look at these concerns in context. Package 2 includes only 7.85 square miles (6%) of the 114 square mile Monterey Breakwater to Point Sur sub-region in SMRs. The Monterey area SMRs (Ricketts East and West SMRs, Hopkins SMR and the Pacific Grove SMR, cover a total of only 1.43 square miles combined. This sub-region is unique within the CCSA in terms of the intensity of its use by a variety of stakeholders with legitimate and competing interests. We have tried very hard in this proposal to be fair to all users. Our modified proposal for Point Lobos and the fact that we have not proposed MPA protected for important habitat at Hurricane Point and Castle Rock further reflect efforts to address the concerns of all users.

Edward F. Ricketts East State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Provide a safe, significantly enhanced non-consumptive recreational experience by protecting marine life diversity and density in an area of traditionally high non-consumptive SCUBA diving. This site is the most heavily used dive site on the West Coast (approximately 65,000 diver days per year) and is also the most popular dive-training site for open water

SCUBA certification in the United States. Regional Profile at 85 & 89. Improve protection and allow restoration for a rockfish nursery area with documented fish diversity.

Socio-Economic Consideration: The proposed Edward F. Ricketts SMRs are expected to result in significant positive socio-economic benefits due to the extraordinarily high non-consumptive values associated with this area. Wildlife watchers, divers, researchers and kayakers, and local tourism businesses are likely to benefit from the proposed SMRs. The boundaries of these SMRs have been drawn after extensive consultation with affected stakeholders to avoid impacts to the squid fishery and to allow continued recreational fishing in water depths beyond 60 feet. This allows recreational fishing to occur from 60-120 feet even under the existing RCA restrictions. Previous proposals for SMCA buffers that would have extended into deeper waters and for an SMR or other MPA to protect the Monterey Shale Beds located to the east of the Breakwater were withdrawn to accommodate concerns raised by RSG members representing small skiff users, spear fishers and CPFV operators. Opportunities for consumptive uses of all kinds would remain open in nearby areas. Shorefishing would continue to be allowed nearby at Wharf 2 in Monterey and between Lover's Point and Esplanade Street in Pacific Grove.

Hopkins State Marine Reserve

Fishing Regulations: No take. Existing regulations restricting anchoring within Hopkins SMR would not be extended into the expanded area of this proposed SMR. Anchoring would continue to be allowed at Hopkins Deep Reef.

Overall Goal: Expand existing tiny SMR to protect deep reef feature just beyond current Hopkins SMR boundary. Enhance research and recreational use of that reef. Improve conservation value of existing SMR (in combination with adjacent SMRs on East and West).

Socio-Economic Considerations: See above text for Edward F. Ricketts East State Marine Reserve.

Edward F. Ricketts West State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: See above for Edward F. Ricketts East State Marine Reserve.

Socio-Economic Consideration: See above for Edward F. Ricketts East State Marine Reserve.

Pacific Grove East State Marine Conservation Area

Regulations:

In whole SMCA (from Lover's Point to Asilomar Avenue in Pacific Grove):

- a. Commercial take is prohibited except kelp harvesting allowed by hand harvest under harvest plan that allocates take to existing harvesters at rates approximately equal to existing take levels.

- b. No intertidal collection and no poke pole fishing allowed.
- c. No spear fishing contests allowed: Contest is defined as: Any competition involving two or more persons in which persons are ranked, or winners are determined, based on the size, weight, number of species, type of species, or number of fish taken by means of spearfishing.

In area between Lover's Point and Esplanade Street ONLY:

- d. Recreational take of finfish by spear and by hook and line allowed.

Overall Goal: Enhance recreational experiences (both consumptive and non-consumptive) of the marine environment in popular SCUBA diving and shore-based wildlife viewing area. Improve protection of existing MPA and respond to community concerns regarding protection of Pacific Grove intertidal and nearshore waters. Protect intertidal communities. Provide continued opportunity for kelp harvesting in area close to abalone farming operator.

Socio-Economic Considerations: This SMCA allows continued kelp harvesting to provide a source of kelp for local mariculture businesses. A portion of this SMCA allows continued recreational fishing from skiffs and kayaks as well as from shore and allows spear fishing in area that the RSG spear fishing representative identified as particularly important (Otter Cove). Recreational fishing is also allowed beyond the 60-foot depth line. Commercial fishing is already prohibited in this area. Therefore the proposed SMCA will not impact commercial fishing. Siting an MPA in an area with high non-consumptive use, visitation, and community value increases positive socio-economic impacts for these users.

Pacific Grove West State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Protect high diversity intertidal habitat and nearshore kelp forest and range of species characteristic of this area and provide enhanced non-consumptive recreational experience in area with excellent public access. Improve protection of existing MPA and respond to community concerns regarding protection of Pacific Grove intertidal and nearshore waters.

Socio-Economic Considerations: Existing SMCA at this site already excludes commercial fishing. Therefore the proposed SMR will not impact commercial fishing. Opportunities for recreational fishing (from shore, skiff or other vessel or by spear) remain available in adjacent area and in waters deeper than 60 feet. Siting SMR in area with high non-consumptive use, visitation, and community value increases positive socio-economic impacts for these users. The City of Pacific Grove has a long history of supporting improved protection for this area. Pacific Grove community members have called for a SMR extending from Lover's Point to Moss Beach. Our proposal reflects a compromise, providing improved protection while allowing continued fishing opportunities within a portion of this area.

Carmel Pinnacles State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Proposed SMR would protect the largest pinnacle structure in the Monterey and Carmel Bays, plus similarly high-relief vertical rocky habitat in shallower nearshore water. Area includes both of both Bull and Giant Kelp and unique hydrocoral communities in relatively accessible area. SMR would both allow restoration of area heavily depleted by recreational fishing and enhance non-consumptive recreational experience at one of the most popular sites for dive boats.

Socio-Economic Considerations: This is the most popular and most visited charter boat SCUBA dive destination in the Monterey Carmel area. The proposed SMR would optimize socio-economic benefits by enhancing recreational and non-consumptive values especially for the commercial dive boat fleet operating from Monterey Harbor. Spearfishing and CPFV RSG representatives raised concerns about the potential impacts of an earlier (larger) SMR proposed for this area. The size of this SMR was reduced in response to these concerns and half of Stillwater Cove was left out of the SMR to maintain a traditional access site for spear fishing. Notably, CPFV vessels can still operate to the north and south of the proposed SMR; spearfishing opportunities remain available at the Monterey Shale Beds, between Lover's Point and Esplanade Street, between Moss Beach and Cypress Point and between Stillwater Cove and Carmel Point. Areas more heavily used by the live fish fishery (between Point Joe and Cypress Point) remain open to commercial fishing.

Carmel Bay State Marine Conservation Area

Fishing Regulations:

- a. Take of all living marine resources is prohibited except the recreational take of finfish by hook and line or spear and the commercial take of kelp by hand harvest.
- b. No spearfishing contests allowed: A contest is defined as: Any competition involving two or more persons in which persons are ranked or winners are determined based on the size, weight, number of species, type of species, or number of fish taken by means of spearfishing.

Overall Goal: Maintain benefit of existing MPA - provide enhanced recreational consumptive and non-consumptive experience through an MPA that does not allow commercial harvest of anything other than kelp. This area will likely benefit from the existence of SMRs on either side which may further enhance the recreational experience at this MPA.

Socio-Economic Considerations: Existing MPA, only change to regulations is to prohibit spearfishing contests.

Point Lobos State Marine Reserve

Fishing Regulations: No take. Current regulations at Point Lobos limiting diver access do not apply to new areas covered by this proposal but would remain in effect for exiting SMR area.

Overall Goal: Expand existing small SMR at site with exceptionally high species and habitat diversity and, in combination with the proposed Point Lobos SMCA, improve protection of a broader range of ecological values. Enhance non-consumptive interests at site with particularly high natural heritage values. Improve protection for species of concern including southern sea otters, marine mammals (several haul-outs and a rookeries in the area), seabird colonies (over 200 species have been identified at Point Lobos and the area is in the top 20th percentile for seabird density and diversity). This area also provides habitat for a high diversity of fish and invertebrates including large rockfishes, lingcod, cabezon and greenlings and is in the top 20th percentile for fish density. Habitats protected include granitic rocky reef, kelp forest, surfgrass, pinnacles, sandy and rocky intertidal, and submarine canyon head. In combination with the proposed Point Lobos SMCA, this site would extend some level of protection across all of the depth ranges identified by the SAT: 0-30 m, 30-100m, 100-200 m, >200 m. However, the SMCA would not meet the replication of representative habitat requirements of Fish and Game Code Sections 2857 (c) (2) & (3).

Socio-Economic Considerations: Conservation interests would be better served by a SMR that extended offshore to the state 3 mile limit and encompassed at least 6 miles of shoreline (as suggested by the MPF Science Guidelines). However, we withdrew our proposal for an SMR meeting those parameters in favor of much smaller SMR buffered by an offshore SMCA in response to concerns raised by fishing representatives on the RSG. Furthermore, the boundary of the proposed expansion of Point Lobos SMR was drawn intentionally to prevent impacting the spot prawn fishery that occurs at approximately the 60-fathom line along the edge of Carmel Canyon. Salmon and albacore fishing would be allowed within the SMCA. Continued recreational fishing opportunities exist in adjacent areas of Carmel Bay as well as south of Malpasos Creek. Maintaining areas open to commercial fishing from Cypress Point to Point Joe and south of Malpasos Creek to Point Sur also reduces potential socio-economic impacts by maintaining opportunities in similar adjacent habitat. Important squid grounds north of Point Sur would not be impacted by this proposal. Increasing protection at this site optimizes socio-economic benefits by enhancing recreational and non-consumptive values in area with especially high natural heritage value. Wildlife watchers, divers, researchers and kayakers would benefit from the proposed SMR expansion. Point Lobos is a top beach entry non-consumptive SCUBA dive destination. Yankee Point is a top SCUBA destination for charter boats.

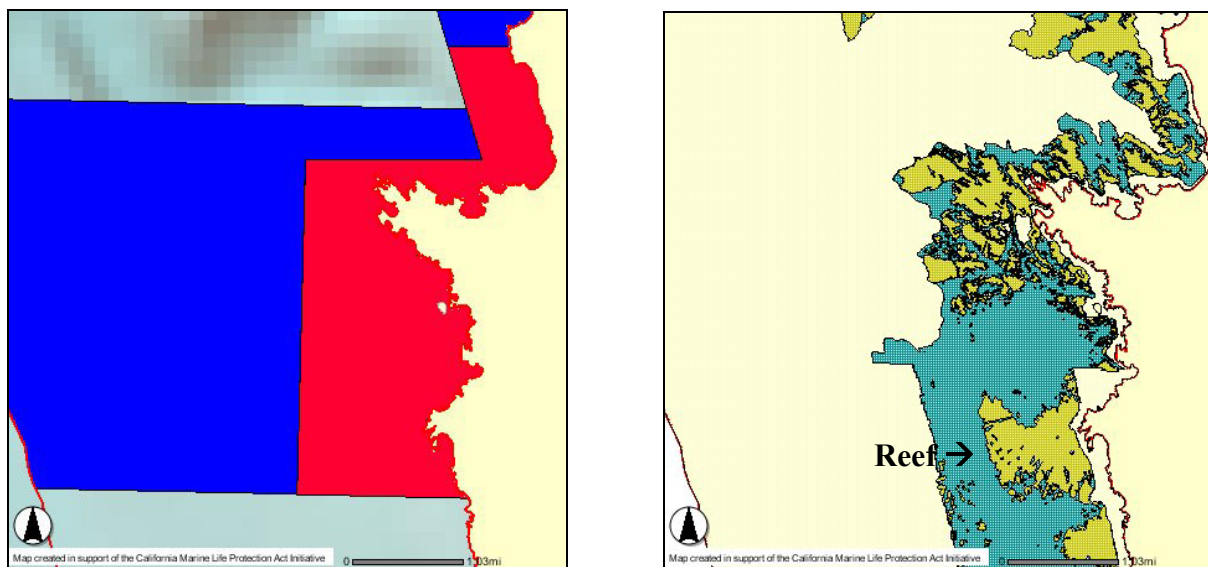
Point Lobos State Marine Conservation Area

Fishing Regulations: Take of all living marine resources prohibited except take of salmon and albacore and take of spot prawns by trap.

Overall Goal: Provide SMCA buffer to proposed SMR, extend some level of protection into deeper water habitat, improve protection of benthic species and most forage species, while allowing continuation of salmon, albacore, and spot prawn fisheries in an effort to minimize

socio-economic impacts. We remain concerned that spot prawn traps may result in bycatch of benthic species (and even cetaceans) that this SMCA is designed to protect.

Socio-Economic Considerations: See above for Point Lobos SMR. By allowing limited pelagic fishing, this SMCA also provides an uninterrupted opportunity to set salmon nets from Point Sur to the Portuguese Ledge SMR.



Left: Proposal 2 Point Lobos SMR and SMCA. Right: Point Lobos area Bottom Features. Package 2 is designed to protect the head of Carmel Canyon (to the north) and all of Yankee Point Reef (to the south) within the SMR. The original Package 2 south-boundary cut the large reef offshore Yankee Point in half. Following SAT guidance, the boundary was modified. The boundary of the SMCA extends along the northern edge of the SMR to allow spot prawn fishing but improve protection for rockfish species associated with the edge of Carmel Canyon.

Point Sur to San Martin

Overall Goal for Sub-Region:

- Protect high quality and diverse habitat including the unique Point Sur Shelf and the finger submarine canyon features off of Big Creek as well as representative rocky intertidal, rocky reef, sandy bottom, kelp forest and submarine canyon habitats characteristic of the Big Sur coastline.
- Enhance the natural heritage values of the spectacular Big Sur area including the iconic Point Sur headland by protecting some of this area in an SMR.
- Site SMRs that meet the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network.
- Help meet MLPA requirements for replicating deepwater habitats SMRs.
- Enhance the scientific effectiveness of the small existing Big Creek SMR and provide an adjacent SMCA where limited pelagic fishing and spot prawn trapping are allowed to facilitate scientific monitoring and comparison.
- Provide relatively high level of SMR protection in section of the CCSA that is most remote from port and receives least amount of fishing effort in an effort to provide meaningful improved conservation with least socio-economic impact.

Development and Evolution of Proposal: Our proposals for MPAs in Big Sur have changed significantly over time in response to concerns raised by RSG members. Because of its relative remoteness from ports, the Big Sur coastline receives far less fishing effort than other areas closer to Monterey and Morro Bay. Therefore, this section of coastline provides an excellent opportunity to provide significant improved protection with less relative impact to users. Several area scientists have identified Point Sur as a uniquely diverse and healthy habitat and as an area whose values cannot be substituted for alternative sites. Recognizing the incomparable ecological value of this area, our proposal has included a SMR at Point Sur from the beginning. In response to concerns raised by fishing interests on the RSG, we have scaled back our initial concept of an approximately 8 mile SMR spanning both the north and south side of the Point to a 5.4 mile area limited to the south side of the Point. Initially, we also proposed a SMR sited to protect the head of Partington Canyon – this canyon begins far closer to shore than any of the other Big Sur Coast canyons, representing a unique geologic feature. However, during discussions with the fishermen who use this sub-region, we were told that the Partington Canyon area was one of the most important sites on the Big Sur coast for CPFVs, spot prawn fishermen, and live fish fishermen. In response to these concerns, we eliminated the proposed SMR. After concerns were also raised about a proposed SMR at Salmon Creek, we also eliminated the SMR proposed for that area. Furthermore, we did not propose MPAs at other ecologically important Big Sur coast headlands such as Lopez Point and Cape San Martin in recognition of the fact that these areas are important fishing grounds that are used by the same uses that could be affected by our proposed SMRs at Point Sur and Piedras Blancas. We have thus tried to ensure that any fishing activity potentially displaced by SMRs in this sub-region would have extensive high quality remaining areas open to use.

Point Sur State Marine Reserve

Fishing Regulations: No-take. We recognize that this proposed SMR contains a portion of an existing regulated kelp bed. We propose that the affected bed be redrawn at the earliest possible opportunity to withdraw the affected area from potential lease and prohibit kelp harvest within the SMR.

Overall Goal: Protect area of particularly high species diversity (in top 20th percentile for fish density and diversity and for seabird diversity) associated with an upwelling cell in the lee of a major headland. Protect a wide variety of unique high quality habitats including the most persistent kelp bed in the Central Coast, rocky reef and soft bottom across a wide range of depths (0-30 m, 30-100 m, 100-200 m), the head of Sur Canyon, and a large freshwater plume and small estuary at the Big Sur River mouth. This site also provides ecological connections to significant offshore features (greater Sur Canyon and Sur Platform). Protect upwelling area with unique gyre effects (currents carry water and larvae both north and south from the point). The proposed Point Sur SMR qualifies as an area with a “unique combination of habitats types” and is an example of “marine areas off headlands with adjacent upwelling centers, especially those with kelp forests and rocky reef in retention areas in the lee of the upwelling center.” The Regional Profile identifies such areas as having regional biodiversity significance. Regional Profile at 31. This site was proposed for protection in the Draft Initial Concepts. The proposed SMR contains existing CCAMP, PISCO and MARINe monitoring sites (intertidal and subtidal) with baseline data available.

Socio-Economic Considerations: Point Sur's high quality habitat and healthy rockfish populations make it an attractive spot for winter weekend trips by CPFV operators and commercial rockfish fishing (both nearshore live fish and deepwater long line). However, Point Sur's distance from port and frequent heavy wind conditions result in far less frequent use of the this area as compared to extensive rocky reef areas closer to Monterey and Morro Bay harbors. Although the proposed SMR would displace the existing fishing that occurs in this area, given the relatively few fishermen affected and the limited number of days this area is fished, overall, impacts are expected to be small. Furthermore, the deepwater portions of this SMR are within the non-trawl and recreational RCAs. Given the exceptionally high ecological and natural heritage values associated with this site, SMR protection would optimize socio-economic benefits associated with this site and with the greater Big Sur coastline.

Big Creek State Marine Conservation Area

Fishing Regulations: Take of all living marine resources is prohibited except spot prawn trap and take of salmon and albacore allowed in waters greater than one mile from shore.

Overall Goal: Provide improved protection to deepwater and submarine canyon habitat and benthic species of concern. Provide replicate for Big Creek SMR to allow comparison of SMR to adjacent SMCA allowing limited pelagic fishing and spot prawn trapping.

Socio-Economic Considerations: This SMCA was designed specifically to address concerns raised by the RSG representative of the spot prawn fishery. Our earlier proposals for MPAs on the Big Sur coast did not allow spot prawn trapping out of concerns regarding bycatch of other benthic species in the prawn traps. However, we recognize that the spot prawn fishery, far more than many other Central Coast fisheries, targets a very specific and limited habitat type – submarine canyons at around the 60-fathom depth range. In an effort to maintain most of this habitat open to fishing, we have limited SMRs that protect this habitat type to the Portuguese Ledge SMR and the Big Creek SMR (providing the replicates required by DFG Code Section 2857 (c)(3)). The proposed Big Creek SMCA would allow spot prawn trapping while still providing some protection for rockfish and other species found at depths either shallower or deeper than spot prawn traps are typically set. Given the narrowness of the Continental Shelf off the Big Sur coast, the area of this SMCA that will be subject to trapping is quite small. By allowing limited pelagic fishing, this SMCA also provides an uninterrupted opportunity to set salmon nets from the northern end of the Big Creek SMR to the southern end of the Point Sur SMR.

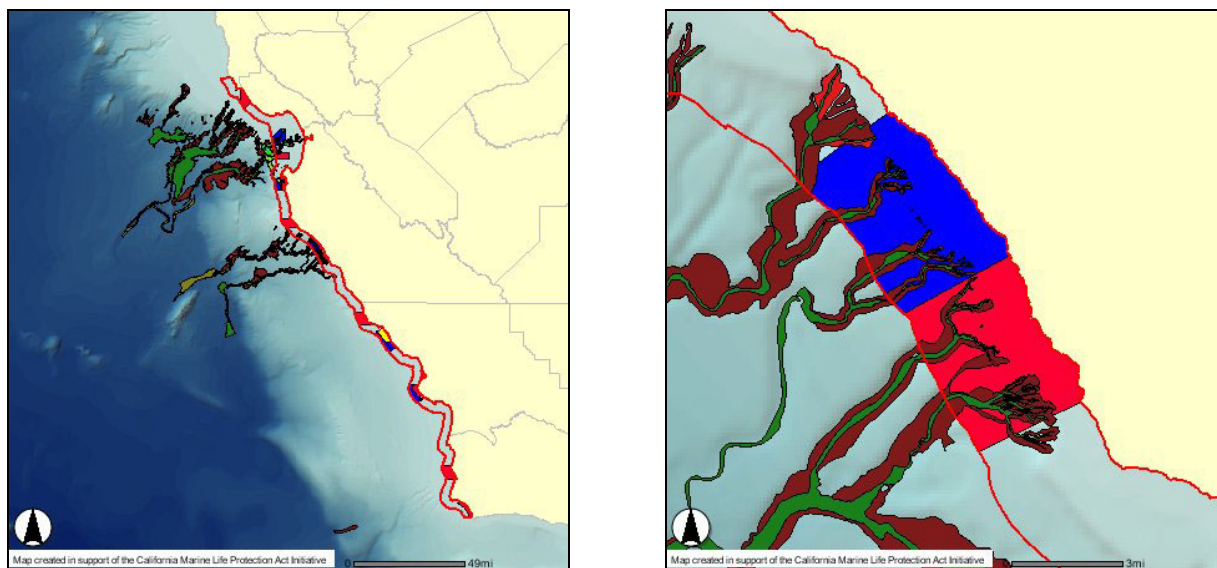
Big Creek State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Provide improved protection (by increasing size and offshore extent to be more consistent with the MPF Science Guidelines) at small existing SMR (established in 1994) adjacent to terrestrial reserve. Protect diverse range of habitats including high quality intertidal at Gamboa Point, wash rock and boulder intertidal areas, rocky reef and soft bottom areas across all depth ranges (0 to >200 m), Giant Kelp and surfgrass beds, and deepwater submarine canyon

habitat and associated biological communities. Comply with MLPA requirement of replicating deepwater and submarine canyon habitats in SMR. Enhance protection of site with CCAMP and PISCO monitoring sites and baseline data available.

Socio-Economic Considerations: This SMR is limited to 5 miles of shoreline extent and buffered with an adjacent SMCA in an effort to minimize socio-economic concerns. In addition, extensive areas of similar habitat to both the north and the south of the proposed SMR would remain open to fishing.



Left: Submarine canyons of the Central Coast with Package 2 superimposed. Submarine canyons are a comparatively rare feature. Right: The boundary between the Big Creek SMR (in Red) and SMCA are logically drawn to not interfere with the migration of fish following the canyons from shallow to deep. The SMCA allows spot prawn fishing with traps.

San Martin to Point Estero

Overall Goal for Sub-Region:

- Protect high quality representative habitats including the unique habitat and species diversity found at Piedras Blancas.
- Protect exceptional natural heritage site at Piedras Blancas and site SMR adjacent to land based protection (State Parks) with high visitation, docent presence, excellent public access and interpretive facilities.
- Site SMR that meets the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network.
- Improve recreational fishing opportunities at site of oldest fishing club in California.
- Provide a mix of MPAs specifically designed to enhance recreational and research opportunities and provide an opportunity to compare open, recreationally fished, and closed areas with similar habitat.

Development and Evolution of Proposal: The MPAs proposed for this sub-region were developed based on the DFG Draft Initial Concepts, input from scientists who have studied and monitored this section of coastline for decades, the Cambria area recreational fishing community and the broader public. These MPAs are designed as a package to meet the needs of multiple

stakeholders and specifically to focus the majority of the protection between Morro Bay and Big Sur at sites that are relatively distant from the Morro Bay and Port San Luis fishing harbors. In direct response to the request by fishermen and harbormaster RSG representatives that MPAs be sited away from port where possible, we did not proposed any MPAs adjacent to Morro Bay or in the area from Avila Point to Purisima Point, areas that have easy access and have historically been subject to considerable recreational fishing effort. Regional Profile maps 8 & 9. Originally we proposed a SMP and SMR in the Cambria area that extended for shore to the state limits but have reduced the offshore extent of the SMP and SMR and buffered them with an offshore SMCA allowing salmon and albacore fishing in an effort to further address concerns raised by consumptive representatives on the RSG.

Piedras Blancas State Marine Reserve

Fishing Regulations: No take.

Overall Goal: Protect natural heritage site with high species and habitat diversity and excellent educational value. Like Point Sur, Piedras Blancas is extraordinarily rich biologically, with both types of kelp (Bull and Giant); exceptional seabird diversity (over 250 species), and extensive marine mammal populations including a significant elephant seal haul-out. Reduce disturbance impacts associated with fishing vessels (noise, lights and gear entanglement). This area contains diverse shoreline habitats including sandy beach and dunes, gravel beach, cobble beach, rocky shelf, and rocky headlands. The proposed SMR also contains a lagoon at Arroyo de la Cruz (steelhead habitat) and prime offshore habitat for large rockfish in an area that historically supported populations of large, sexually mature rockfish and thus presents a good opportunity for restoration of depleted species. The proposed SMR would be large enough (7 miles of shoreline and 22 square miles in area) and protective enough to serve as an effective component of an ecological network. This area has extensive baseline monitoring data going back decades.

Socio-Economic Considerations: Both the Morro Bay CPFV and live fish fishery use this area. However, similar habitat would remain open to fishing both closer to the harbors and to the north of the proposed SMR. Recreational fishing opportunities would be enhanced in the nearby Cambria State Marine Park (SMP). The Piedras Blancas area is increasingly important for tourism as a major viewing area for California elephant seals, harbor seals, California sea otters, bird watching, whale watching. SMR status would contribute to attraction as a destination eco-tourist site, thus optimizing socio-economic benefits.

Cambria State Marine Park

Fishing Regulations: No commercial take.

Overall Goal: Enhance recreational small boat, kayak, and spear fishing opportunities in a high quality habitat area that has historically been most important for recreational users but has been depleted by the commercial livefish fishery in recent years. The proposed SMP would allow this area to recover from commercial fishing impacts and provide valuable replicate habitat to Ken Norris SMR for comparing a recreationally fished and unfished MPA. The proposed SMP has good public access including parking, restroom facilities, campgrounds, and a small boat access

point at Leffingwell Landing. Lampton Park could provide interpretive facilities for this SMP and the adjacent SMR.

Socio-Economic Considerations: The proposed SMP was developed in coordination with local recreational fishermen and would have minimal negative socio-economic impacts due to the historically low participation in the live nearshore fishery, availability of comparable habitat in adjacent areas to the north and south and allowance of salmon and albacore fishing in the adjacent SMCA. The SMP would optimize socio-economic benefits for kayaking, diving, recreational fishing and tourism. In addition to being a popular local site for small skiff recreational fishing, this area is used by spear fishermen (Regional Profile Map 10b) and kayak fishers from northern and southern California (Letter from Kayak Fishing Association of Southern California). Compared to areas closer to Morro Bay and Port San Luis, this area has received less heavy fishing effort. Regional Profile Maps 8 & 9.

Ken Norris State Marine Reserve

Fishing Regulations: No-take. This site is proposed as an SMR. We recognize that this proposed SMR contains a portion of an existing leased kelp bed. We propose that the affected lease be redrawn at the earliest possible opportunity to withdraw the affected area from lease and prohibit kelp harvest within the SMR.

Overall Goal: Protect and replicate representative habitats and the species that depend on them in a SMR that could serve as a focal site for an MPA monitoring program. Site would also serve as “control” for adjacent Cambria SMP to allow study of impacts of recreational fishing. This proposed SMR is located adjacent to University of California Natural Reserve (terrestrial) that provides extensive educational and particularly research opportunities and regularly hosts university students and researchers. The site is already used for a variety of monitoring and other research projects. PISCO has ongoing intertidal and subtidal monitoring sites in this area. The MARINE program has a study site within this proposed SMR that monitors species of algae and invertebrates. DFG has baseline data on fish abundance in this region from periodic research cruises since 1982.

Socio-Economic Considerations: The small size of the proposed SMR (3.5 mile shoreline extent), the availability of fishing opportunities in similar habitats to the north and the south, and the provision for salmon and albacore fishing in the adjacent SMCA also reduce potential socio-economic impacts. Compared to areas closer to Morro Bay and Port San Luis, this area has historically received less recreational fishing effort. Regional Profile Maps 8 & 9.

Cambria State Marine Conservation Area

Fishing Regulations: Take of all living marine resources is prohibited except take of salmon and albacore.

Overall Goal: To provide some level of extended protection for Cambria SMP and Ken Norris SMR offshore while allowing salmon and albacore fishing to minimize socio-economic impacts.

Socio-Economic Considerations: This SMCA is designed to improve protection for the Cambria SMP and Ken Norris SMR by extending MPA protection to the state 3-mile limit while allowing salmon and albacore fishing to reduce socio-economic impacts. By allowing limited pelagic fishing, this SMCA also provides an uninterrupted opportunity to set salmon nets from just north of Purisima Point to the southern end of the proposed Piedras Blancas SMR.

Point Estero to Santa Maria River

Overall Goal for Sub-Region:

- Protect outstanding representative habitat including pinnacles and nearshore hydrocoral features at Point Buchon.
- Site SMR that meets the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network.
- Take advantage of extensive baseline and ongoing monitoring data associated with the Diablo Canyon Power Plant's northern control site located 1.2 miles down coast of Point Buchon and 2 miles up coast of Lion Rock.
- Protect and replicate coastal estuary habitat at Morro Bay Estuary and enhance non-consumptive recreational experience in this area.

Development and evolution of proposal: The proposals for this sub-region are based on proposals in the Draft Initial Concepts, discussions with scientists familiar with this area of the coast including former DFG staff and environmental consultants who have monitored the power plant, and discussions with local community members and stakeholders including the director of the Morro Bay Estuarine Reserve. Proposals to include the entire Morro Bay Estuary in an SMR and to extend the Point Buchon SMR to the three-mile state limit were scaled back to better accommodate consumptive interests.

Estero Bluffs State Marine Reserve

Fishing Regulations: No take.

Overall Goal: Protect intertidal habitat and associated biological communities and enhance educational values at site with high benthic invertebrate diversity. The proposed SMR is adjacent to Estero Bluffs State Park, has excellent public access and provides educational opportunities for local community.

Socio-Economic Considerations: This tiny proposed SMR was designed specifically to avoid potential socio-economic impacts based on its small size (only one mile) and shallow offshore extent (only three foot depth). The proposed SMR includes only the most remote one-mile shoreline in a four-mile long beach.

Morro Bay East State Marine Reserve & Morro Bay South State Marine Reserve

Fishing Regulations: No take.

Overall Goal: Protect salt marsh, intertidal mud flats; eel grass beds, wetlands and freshwater plumes. Eelgrass habitat is identified in the Gap Analysis as being underrepresented in existing MPAs and seagrass beds are specifically called out for protection in the MLPA itself. Protect diversity of species including seabirds, steelhead, skates, bat rays, leopard shark, mud shrimp, ghost shrimp, and clams. Protect nursery ground, forage and resting habitat.

Socio-Economic Concerns: Conservation interests would be better served by a SMR that encompassed and protected the entire Morro Bay Estuary. The proposed combination of two smaller SMRs and a central SMCA was designed to address the concerns of consumptive stakeholders and reflects a compromise that largely avoids impacting existing users. The small SMRs would benefit conservation, education, and non-consumptive recreational interests, thus optimizing positive socio-economic benefits. Opportunities to recreationally fish in the main channel of Morro Bay would remain open while more vulnerable side channel areas would receive higher levels of protection. These proposals were crafted with the input of the City of Morro Bay, State Parks, RSG fishing and harbormaster representatives, hunters.

Morro Bay State Marine Conservation Area

Regulations: No commercial take except oyster leases allowed.

Overall Goal: The proposed SMCA would essentially allow the continuation of current fishing activities in the center of the Estuary but not allow any substantial increased in impacts over the existing levels.

Socio-Economic Considerations: The proposed SMCA is not expected to result in any significant impacts.

Point Buchon State Marine Reserve

Fishing Regulations: No take.

Overall Goal: Protect outstanding and diverse habitat including kelp bed, pinnacles and rare shallow water hydrocoral colonies. The proposed SMR is within the top 20th percentile for fish and seabird density and has a high density of sea otters. Over 800 taxa have been documented in this area by studies performed by Tenera Environmental as part of the Diablo Canyon Power Plant licensing requirements. Including the northern “control” monitoring site for the power plant within the SMR provides an excellent source of extensive baseline and ongoing monitoring data. Past research and data sets include a comprehensive marine biological and oceanographic study, covering more than two decades, which included both subtidal and intertidal studies to identify and enumerate fishes, invertebrates, surfgrasses, and algae. The proposed SMR would be large enough (6.7 miles long) and protective enough (in combination with the associated high protection level Point Buchon SMCA) to serve as an effective component of an ecological network.

Socio-Economic Considerations: The proposed SMR is located in the northern half of the area

between Avila and Point Buchon in an effort to protect outstanding habitat while maintaining open access to the more heavily fished adjacent area between Avila and the power plant. Regional Profile Maps 8 & 9. Fishermen from Morro Bay can still access the waters to the south of the power plant as well as similar habitat to the north of Morro Bay. Proposals to “recognize” the existing security closure adjacent to the power plant would not achieve the ecological goals of this SMR as the security closure is within the zone of influence of the power plant’s thermal discharge and entrainment. Allowing salmon and albacore fishing offshore in the proposed SMCA would also reduce potential socio-economic impacts.

Point Buchon State Marine Conservation Area

Fishing Regulations: No take of living marine resources except fishing for salmon and albacore allowed.

Overall Goal: Provide SMCA “buffer” to extend protection for offshore and deepwater species and habitats associated with the Point Buchon SMR. By allowing limited pelagic fishing, this SMCA also provides an uninterrupted opportunity to set salmon nets from just north of Purisima Point to the southern end of the proposed Piedras Blancas SMR.

Socio-Economic Considerations: See above for Point Buchon SMR.

Santa Maria River to Point Conception

Overall Goal for Sub-Region:

- Protect representative habitat and associated biological communities (especially rocky reef) in SMRs that meet the MPF Science Guidelines on size and offshore extent and can effectively contribute to an ecological network
- Protect important seabird and marine mammal forage areas and forage species.
- Protect portion of oceanographic transition zone (Point Conception) in SMR.

Development and evolution of proposal: The MPAs proposed for this sub-region were developed based on the DFG Draft Initial Concepts, and input from scientists, managers and recreational fishermen familiar with this area. An earlier proposal to include more shoreline and water area around Purisima Point in MPA protection (via a combination of SMR and SMP) was abandoned in direct response to concerns raised by the fishing community about limiting access to rocky reef habitat in this southern sub-region.

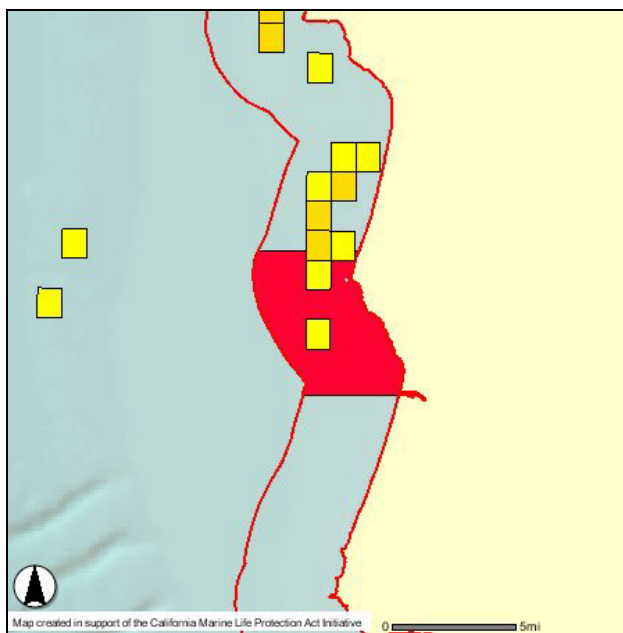
Purisima Point State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: Protect representative hard bottom and sand habitat that is critical to the wide diversity of fish, invertebrate and seabird and marine mammal populations found in this area. The proposed SMR contains a wide variety of nearshore rockfish, rocky reef species, intertidal invertebrates, pelagic fishes, seabirds and marine mammals. The proposed SMR site would protect vital habitat and prey for commercially important fish and invertebrate species as well as

the top predators that prey on them. Purisima Point itself provides vital roost/haul-out habitat for seabirds and marine mammals as well as important foraging habitat for thousands of shorebirds, the kelp beds found in waters leeward of the point provide critical foraging habitat for southern sea otters. The proposed SMR is large enough (5.8 miles long and 23 square miles in area) to serve as an effective component of an ecological network.

Socio-Economic Considerations: The proposed SMR is designed to leave the area around Point Sal (which is more easily accessible from port and therefore more heavily fished) open to fishing activities. A larger SMR encompassing both the north and south side of Purisima Point would be preferred from a conservation perspective but was not proposed, in an effort to accommodate all interests. We have reduced the shoreline extent of proposed MPA protection in this area and shifted it further south in response to concerns raised by the fishing community. Most of the rocky reef area to the north of the Point would remain open to fishing.



Package 2 Purisima Point SMR proposal with CPFV data overlaid. Package 2 avoids impacts to the recreational fishing fleet by siting MPAs designed to protect representative sand bottom and rocky reef habitat in areas more distant from port.

Point Conception State Marine Reserve

Fishing Regulations: No-take.

Overall Goal: This site is on one of the two major bioregion breaks in the State. The goal of this proposed MPA is to provide additional protection to habitats and biological communities associated with both sandy and rocky bottom, located at the confluence of the California Current and the counter-current in the southern California Bight. Like upwelling centers, headlands, and submarine canyons – only even rarer – bioregion breaks represent unique habitats with an abundant and diverse biological assemblage. Point Conception is an area of extraordinary diversity, uniqueness, and importance. In addition, the proposed SMR will help protect the southern sea otter, a species listed as threatened under the Endangered Species Act. The proposed SMR would help produce larvae and adult fish that could enter the current that bathes

the northern Channel Islands and the Channel Island MPA network, thus directly contributing to an effective statewide MPA network.

Socio-Economic Considerations: The proposed SMR is designed to leave the area between the northern boundary of the SMR and the southern end of the Purisima SMR open to fishing. The commercially important lee to the south of Point Arguello is left open while the rougher, less frequently fished, area towards Point Conception is put in Reserve. Areas beyond one mile from shore are also left open to fishing.